

09/08/19

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols

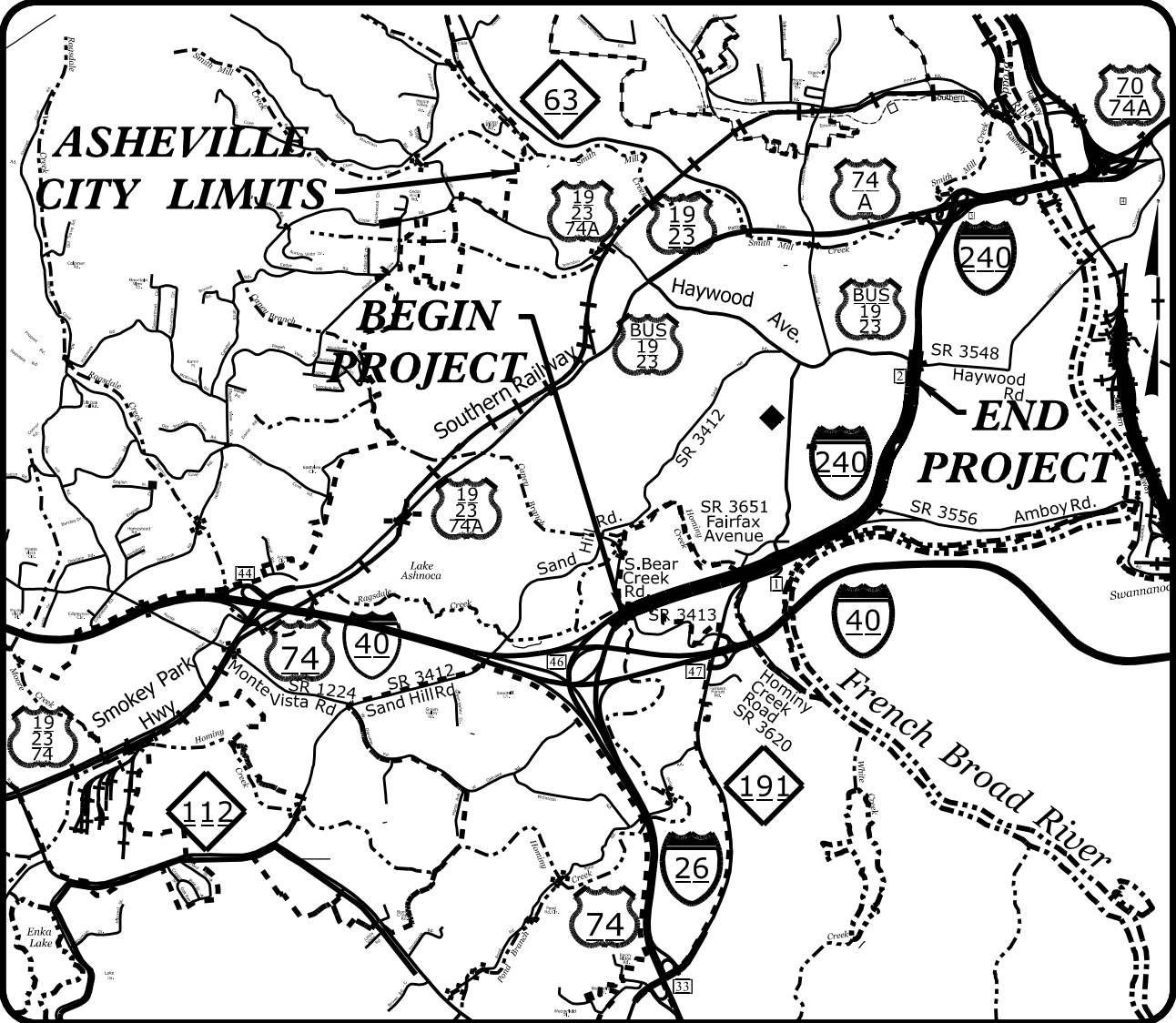
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BUNCOMBE COUNTY

LOCATION: I-26/I-240 FROM NORTH OF I-40 TO SR-3548 (HAYWOOD RD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, STRUCTURES,
AND RETAINING WALLS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-2513AC	S-1	
STATE PROJ. NO.	P.A. PROJ. NO.	DESCRIPTION	
34165.1.13		P.E.	
34165.2.18		R/W	
34165.2.19		UTIL.	
34165.3.8		CONST.	

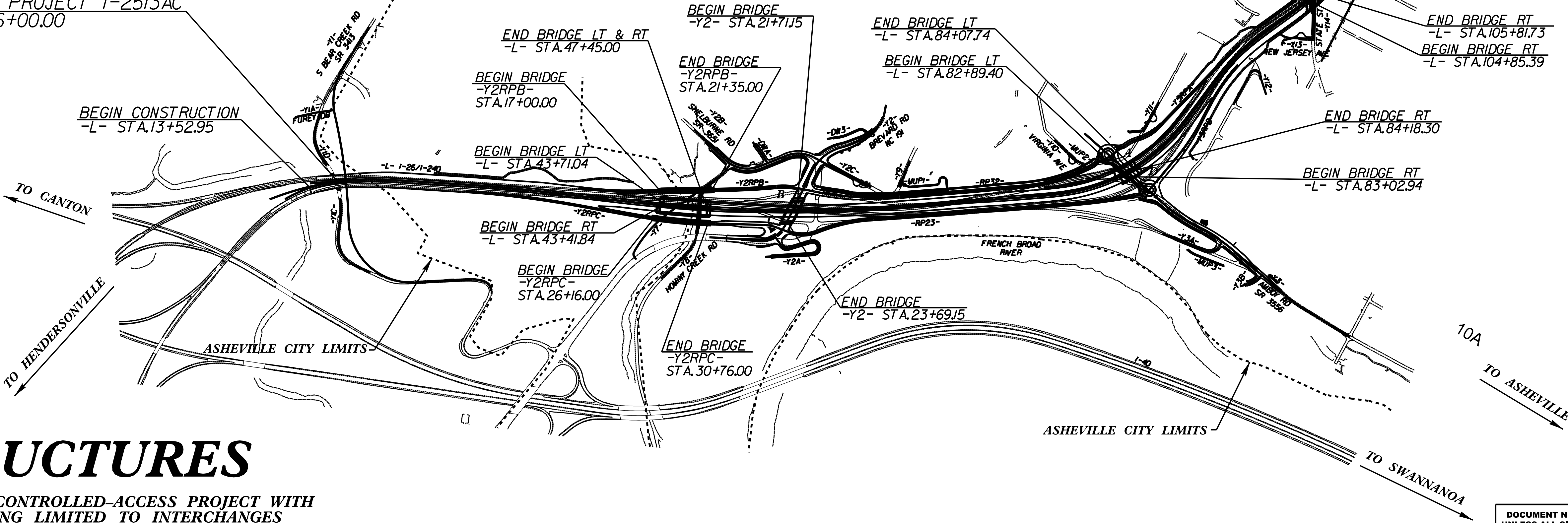


VICINITY MAP

BEGIN TIP PROJECT I-2513AC
-L- STA.16+00.00

BEGIN CONSTRUCTION
-L- STA.13+52.95

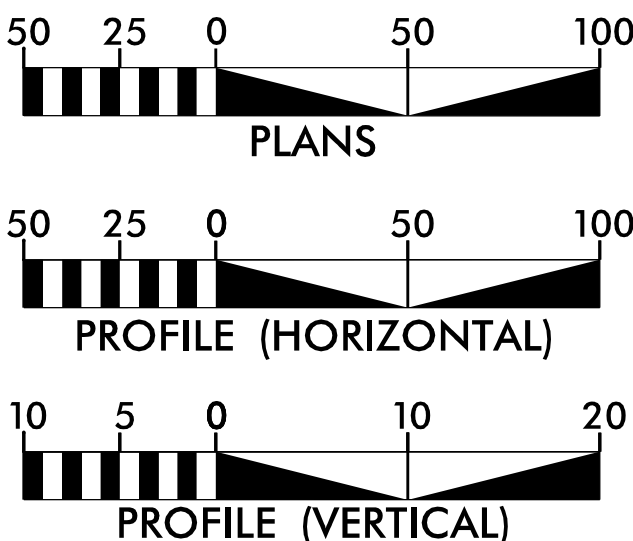
NOTE: STRUCTURE 1 (S. BEAR CREEK RD OVER
I-26/I-240) HAS BEEN REMOVED FROM THE CONTRACT



STRUCTURES

THIS IS A CONTROLLED-ACCESS PROJECT WITH
ACCESS BEING LIMITED TO INTERCHANGES

GRAPHIC SCALES



DESIGN DATA

ADT 2026 = 78,700
ADT 2046 = 106,600
K = 9 %
D = 55 %
T = 10 % *
V = 60 MPH
* TTST = 5% DUAL 5%
FUNC CLASS = INTERSTATE
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-2513AC= 1.624 MI
LENGTH STRUCTURE TIP PROJECT I-2513AC= 0.118 MI
TOTAL LENGTH TIP PROJECT I-2513AC= 1.742 MI

AECOM

NC FIRM LICENSE No: F-0342
5438 Wade Park Blvd., Suite 200
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

2024 STANDARD SPECIFICATIONS

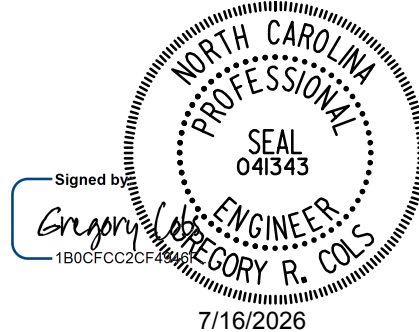
RIGHT OF WAY DATE:
DECEMBER 6, 2022
LETTING DATE:
NOVEMBER 17, 2026

GREGORY COLS, P.E.
PROJECT ENGINEER

MOHAMMED FALLAHA, P.E.
PROJECT DESIGN ENGINEER

OLIVIA L. PILKINGTON, P.E.
NCDOT CONTACT

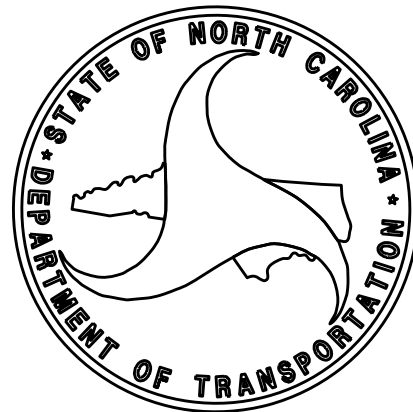
STRUCTURE DESIGN ENGINEER



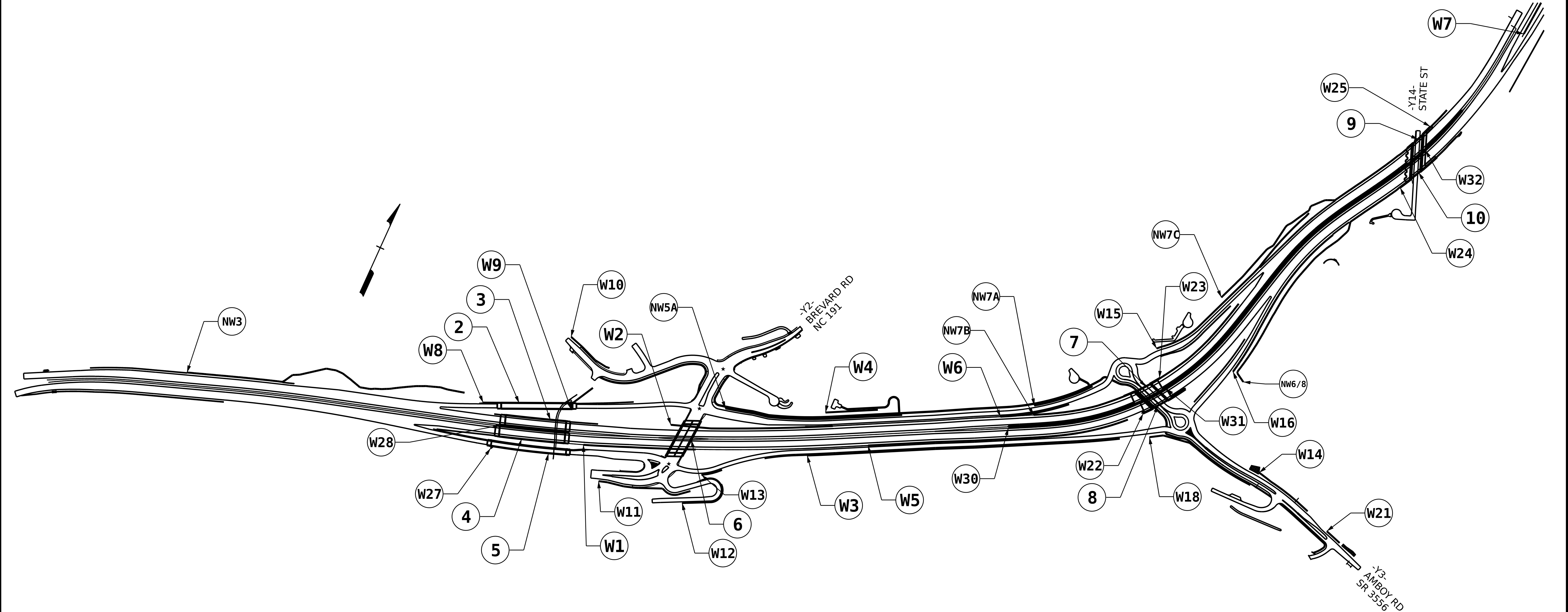
SIGNATURE:

P.E.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



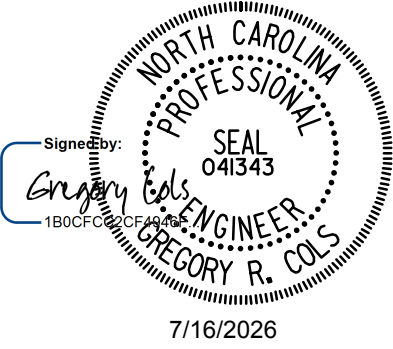
6/17/2026
c:\npwworking\aecom_ds2\1_na_2020\d0131345\403_000_12513AC_SMU_TSH.dgn
LeeL6



INDEX							
STR. NO.	STATION	DESCRIPTION	SHEET NUMBERS	STR. NO.	STATION	DESCRIPTION	SHEET NUMBERS
				7	83+50.80 -L- 14+96.11 -Y3-	BRIDGE ON I-26/I-240 OVER SR 3556 BETWEEN NC 191 AND US 23 BUS (LEFT LANE)	S7-01 THRU S7-41
2	19+17.50 -Y2RPB-	BRIDGE ON I-26/I-240 OVER HOMINY CREEK BETWEEN I-40 WB & NC 191 (BREVARD RD) (ON-RAMP)	S2-01 THRU S2-44	8	83+50.80 -L- 14+96.11 -Y3-	BRIDGE ON I-26/I-240 OVER SR 3556 BETWEEN NC 191 AND US 23 BUS (RIGHT LANE)	S8-01 THRU S8-39
3	45+58.00 -L-	BRIDGE ON I-26/I-240 OVER HOMINY CREEK BETWEEN I-40 WB & NC 191 (BREVARD RD) (LEFT LANE)	S3-01 THRU S3-57	9	105+49.43 -L- 13+76.06 -Y14-	BRIDGE ON I-26/I-240 OVER STATE ST BETWEEN AMBOY RD AND US 23 BUS (LEFT LANE)	S9-01 THRU S9-46
4	45+44.00 -L-	BRIDGE ON I-26/I-240 OVER HOMINY CREEK BETWEEN I-40 WB & NC 191 (BREVARD RD) (RIGHT LANE)	S4-01 THRU S4-56	10	105+49.43 -L- 13+76.06 -Y14-	BRIDGE ON I-26/I-240 OVER STATE ST BETWEEN AMBOY RD AND US 23 BUS (RIGHT LANE)	S10-01 THRU S10-52
5	28+46.00 -Y2RPC-	BRIDGE ON -Y2RPC- OVER HOMINY CREEK AND SR 3620 BETWEEN I-26/I-240 & NC 191	S5-01 THRU S5-45	W 1-16, 18, 21-25, 27-28, 30-32	VARIES	RETAINING WALLS	W-1 THRU W-83
6	22+70.15 -Y2- 54+66.11 -L-	BRIDGE ON NC 191 (BREVARD RD) OVER I-26/I-240 BETWEEN SR 3620 & SR 3651	S6-01 THRU S6-60	NW 3, 5A, 7A-7C, 6/8	VARIES	NOISE WALLS	SBW-1 THRU SBW-6

NOTE: BRIDGE 01 AND WALLS 17, 19,
20, 26, AND 29 HAVE BEEN REMOVED
FROM THE PROJECT

PROJECT NO. I-2513 AC
BUNCOMBE COUNTY

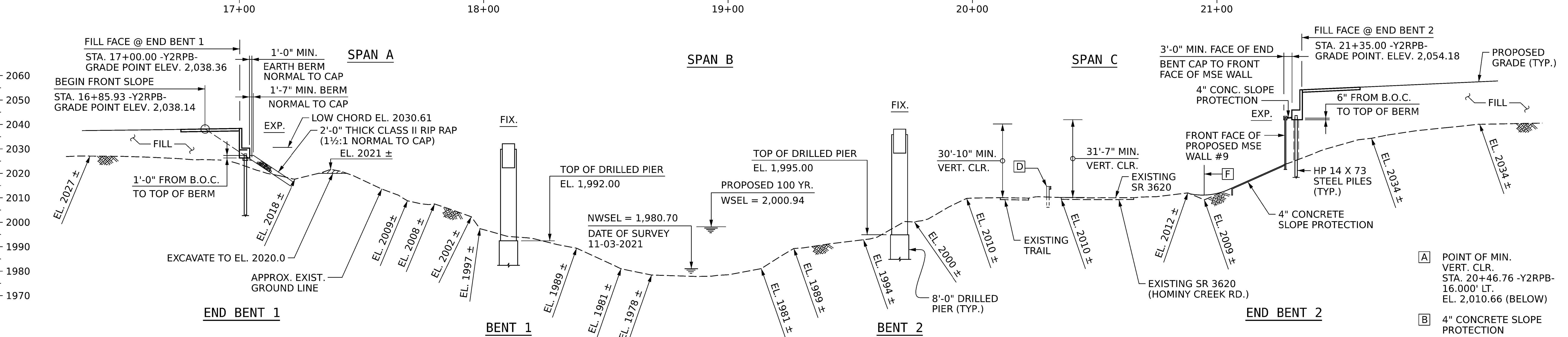


STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
INDEX					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-2
TOTAL SHEETS					2

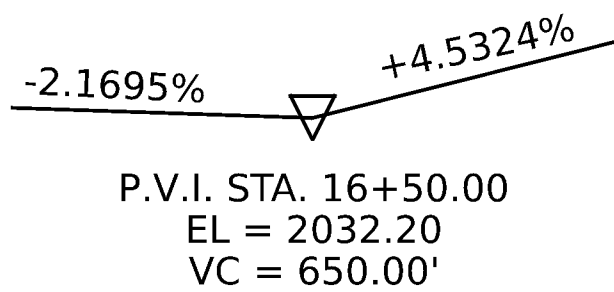
DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com/gfnrt-pw-01/Document/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_001_I2513AF-SMU.GD01_S2-01_100905

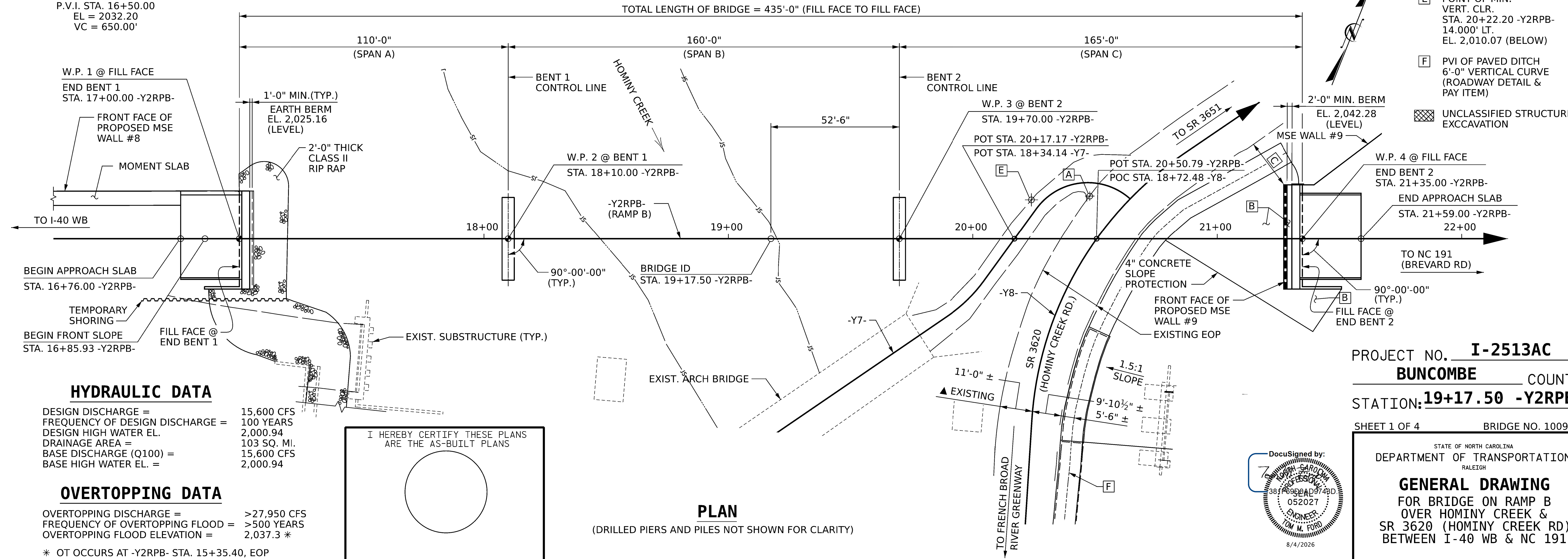
8/4/2026 12:58:30 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tb1



GRADE DATA -Y2RPB-



SECTION ALONG -Y2RPB-
SECTIONS AT END BENTS AND BENTS ARE AT RIGHT ANGLES



- [A] POINT OF MIN. VERT. CLR. STA. 20+46.76 -Y2RPB- 16.000' LT. EL. 2,010.66 (BELOW)
- [B] 4" CONCRETE SLOPE PROTECTION
- [C] 20'-11" MIN. HORIZ. CLR. TO FACE OF WALL
- [D] EXISTING GUARDRAIL
- [E] POINT OF MIN. VERT. CLR. STA. 20+22.20 -Y2RPB- 14.000' LT. EL. 2,010.07 (BELOW)
- [F] PVI OF PAVED DITCH 6'-0" VERTICAL CURVE (ROADWAY DETAIL & PAY ITEM)
- [X] UNCLASSIFIED STRUCTURE EXCAVATION

HYDRAULIC DATA

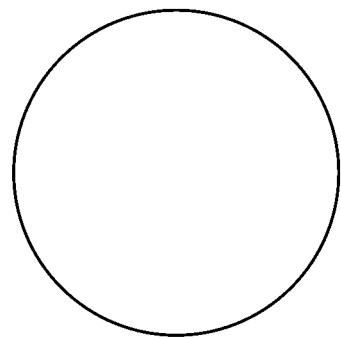
DESIGN DISCHARGE = 15,600 CFS
FREQUENCY OF DESIGN DISCHARGE = 100 YEARS
DESIGN HIGH WATER EL. 2,000.94
DRAINAGE AREA = 103 SQ. MI.
BASE DISCHARGE (Q100) = 15,600 CFS
BASE HIGH WATER EL. = 2,000.94

OVERTOPPING DATA

OVERTOPPING DISCHARGE = >27,950 CFS
FREQUENCY OF OVERTOPPING FLOOD = >500 YEARS
OVERTOPPING FLOOD ELEVATION = 2,037.3 *

* OT OCCURS AT -Y2RPB- STA. 15+35.40, EOP

I HEREBY CERTIFY THESE PLANS
ARE THE AS-BUILT PLANS



PLAN

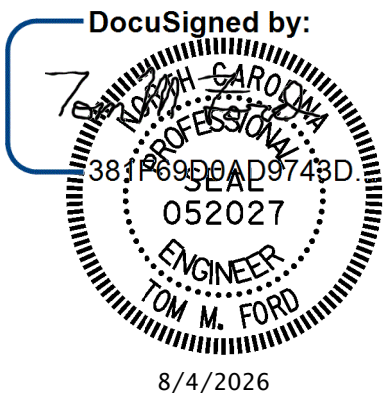
(DRILLED PIERS AND PILES NOT SHOWN FOR CLARITY)

▲ EXISTING PAVEMENT WIDTHS ON -Y8- ARE APPROX. AND REPRESENT A MINIMUM VALUE IN THE VICINITY OF THE BRIDGE. SEE ROADWAY PLANS.



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 1 OF 4 BRIDGE NO. 100905

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
FOR BRIDGE ON RAMP B
OVER HOMINY CREEK &
SR 3620 (HOMINY CREEK RD)
BETWEEN I-40 WB & NC 191

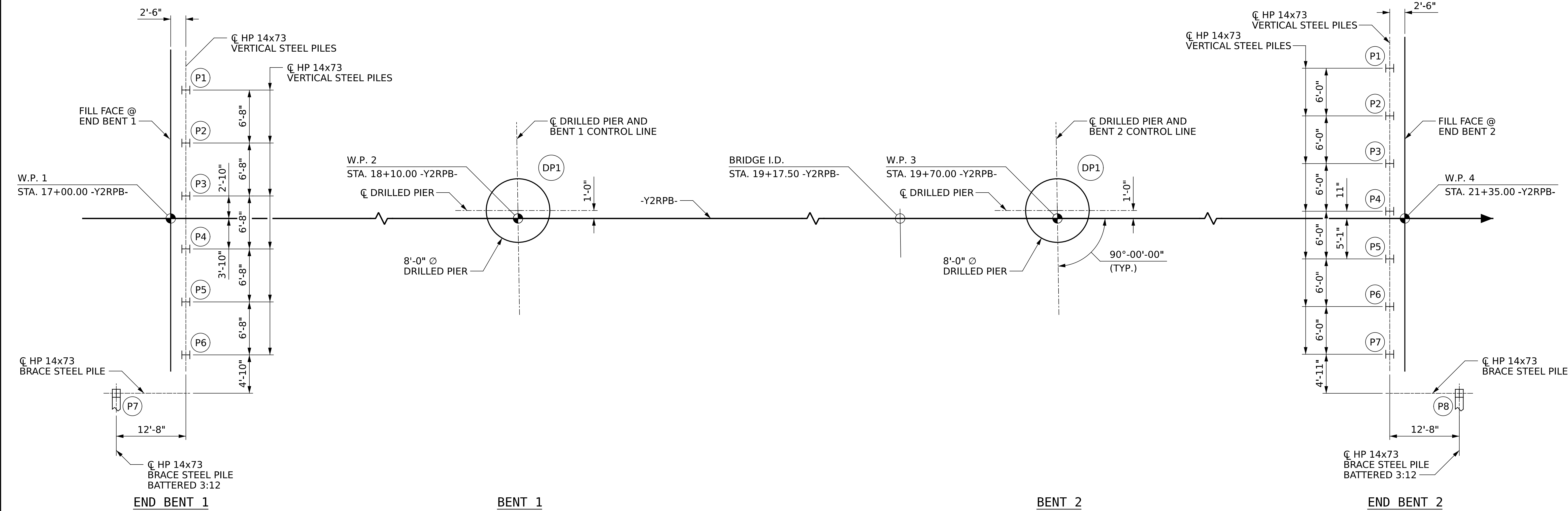
REVISIONS						SHEET NO. S2-01
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

STR. #2

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com:gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_003_I2513AC-SMU_CD02_S2-02_100905

8/4/2026 12:58:46 PM pdf_color_gfclt_f.S.plt Hominy-1-12-26.tbl



NOTES:

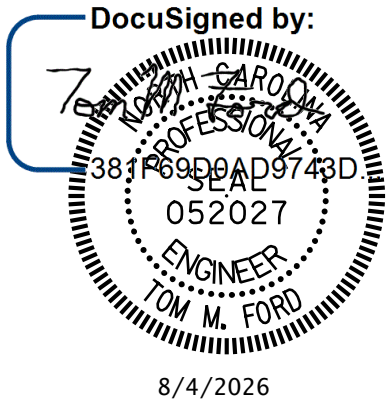
- FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.
- FOR DRILLED PIERS, SEE SECTION 411 OF THE STANDARD SPECIFICATIONS.
- POLYMER SLURRY IS REQUIRED FOR DRILLED PIERS AT BENT NO. 1 AND NO. 2.
- BACKWALL REINFORCING AT END BENT NO. 1 MAY INTERFERE WITH REINFORCEMENT FOR MSE RETAINING WALL NO. 8. SEE RETAINING WALL PLANS AND ROADWAY STANDARD DRAWING 423.03.
- USE THE SAME MATERIAL IN THE BRIDGE APPROACH FILL AT END BENT NO. 1 AS IN THE REINFORCED ZONE FOR MSE RETAINING WALL NO. 8.
- COMPLETE MSE WALL EXCAVATION PRIOR TO INSTALLING THE PILES AT END BENTS NO. 1 AND NO. 2.
- DRILLED PIERS AT BENT NO. 1 AND NO. 2 REQUIRE PILOT BORINGS THAT WILL BE USED TO DETERMINE THE "REQUIRED DRILLED PIER TIP NO HIGHER THAN" ELEVATION. THE BORING AT BENT NO. 1 SHALL BE ADVANCED TO AN ELEVATION OF 1941 FEET AND THE BORING AT BENT NO. 2 SHALL BE ADVANCED TO AN ELEVATION OF 1949 FEET. THE ENGINEER WILL REVIEW THE RESULTS INCLUDING ROCK CORES TO DETERMINE THE TIP ELEVATION FOR EACH DRILLED PIER, SEE GEOTECHNICAL SPECIAL PROVISION FOR PILOT BORINGS.
- THERMAL INTEGRITY TESTING IS REQUIRED FOR BENTS NO. 1 AND NO. 2. SEE THERMAL INTEGRITY TESTING SPECIAL PROVISIONS.
- FOR MASS CONCRETE, SEE PROJECT SPECIAL PROVISION.

FOUNDATION PLAN

DIMENSIONS LOCATING END BENT PILES AND BENT DRILLED PIER ARE SHOWN TO THE CENTERLINE OF PILES AND DRILLED PIERS

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 4



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
GENERAL DRAWING
FOR BRIDGE ON RAMP B
OVER HOMINY CREEK &
SR 3620 (HOMINY CREEK RD)
BETWEEN I-40 WB & NC 191

DRAWN BY :	J. HARRIS	DATE :	4/2024
CHECKED BY :	J. FARNHAM	DATE :	6/2024
DESIGN ENGINEER OF RECORD:	T. FORD	DATE :	6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-02
1			3			TOTAL SHEETS
2			4			44

SUMMARY OF PILE INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

[illegible]

$$* \text{ RDR} = \frac{\text{Factored Resistance} + \text{Factored Drag Load} + \text{Factored Dead Load}}{\text{Dynamic Resistance Factor}} + \text{Nominal Drag Load Resistance} + \text{Nominal Resistance from Scourable Material}$$

* Predrilling for Piles is required for end bents/bents with a predrilling length and at the Contractor's option for end bents/bents with predrilling information but no predrilling length.

PILE DESIGN INFORMATION

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pile(s) #(#) (e.g., "Bent 1, Piles 1-5")	Factored Axial Load per Pile KIPS	Factored Drag Load per Pile KIPS	Factored Dead Load * per Pile KIPS	Dynamic Resistance Factor	Nominal Drag Resistance per Pile KIPS	Nominal Scour Resistance per Pile KIPS
End Bent 1, Piles 1-7	275			0.6		
End Bent 2, Piles 1-8	290			0.6		

* Factored Dead Load is factored weight of pile above the ground line.

SUMMARY OF PILE ACCESSORIES

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pile(s) #(-#) (e.g., "Bent 1, Piles 1-5")	Pipe Pile Plates EACH	Steel Pile Points		
		Pipe Pile Cutting Shoes EACH	Pipe Pile Conical Points EACH	H-Pile Points EACH
TOTAL QUANTITY:				

SUMMARY OF DPT/PILE ORDER LENGTHS

(Blank entries indicate item is not applicable to structure)

Dynamic Pile Testing (DPT)			Pile Order Lengths for Concrete Piles	
End Bent / Bent No (e.g., "Bent 1 - Bent 3")	DPT Test Pile Length FT	DPT Testing Quantity EACH	End Bent / Bent No (e.g., "Bent 1 - Bent 3")	Pile Order Length Basis* EST or DPT
End Bent 1	45	1		
End Bent 2	40			
TOTAL QUANTITY:		1		

EST = Pile order lengths from estimated pile lengths; DPT = Pile order lengths based on Dynamic Pile Testing. For groups of end bents/bents with pile order lengths based on DPT testing, the first end bent/bent no. listed for each group is the representative end bent/bent with the DPT.

SUMMARY OF DRILLED PIER INFORMATION/INSTALLATION

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pier(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Number of Piers per Line	Factored Resistance per Pier KIPS	Required Drilled Pier Tip Elevation FT	Required Tip Resistance per Pier KSF	Scour Critical Elevation FT	Minimum Drilled Pier Penetration into Rock per Pier LIN FT	Drilled Pier Length* per Pier LIN FT	Drilled Pier Length Not in Soil* per Pier LIN FT	Drilled Pier Length In Soil* per Pier LIN FT	Permanent Steel Casing Required? YES	Permanent Steel Casing Tip Elevation (Elevation Not To Extend Casing Below) FT	Permanent Steel Casing Length** per Pier LIN FT
Bent 1, Pier 1	1	3200	1957.0	100	1986.7	15.6		15.6	19.4	YES	1972.6	19.4
Bent 2, Pier 1	1	3800	1965.0	100	1992.5	20.4		20.4	10.1	YES	1985.4	9.6
TOTAL QUANTITY:								36	29.5			29

Drilled Pier Length, Drilled Pier Length Not in Soil and Drilled Pier Length in Soil represent estimated drilled pier quantities and are measured and paid for as either "_____ Dia. Drilled Piers" or "_____ Dia. Drilled Piers Not in Soil" and "_____ Dia. Drilled Piers in Soil" in accordance with Article 411-7 of the NCDOT Standard Specifications. For bents with a not in soil pay item, drilled piers through air or water will be paid at the contract unit price for "_____ Dia. Drilled Piers in Soil."

* Permanent Steel Casing Length equals the difference between the ground line or top of drilled pier elevation, whichever is higher, and the permanent casing tip elevation and is measured and paid for as "Permanent Steel Casing for ____ Dia. Drilled Pier" in accordance with Article 411-7 of the NCDOT Standard Specifications.

SUMMARY OF DRILLED PIER TESTING

(Blank entries indicate item is not applicable to structure)

End Bent / Bent No, Pier(s) #(-#) (e.g., "Bent 1, Piers 1-3")	Standard Penetration Test (SPT) EACH	Crosshole Sonic Logging (CSL) EACH	Thermal Profile Logging (TPL) EACH	Shaft Inspection Device (SID) EACH	Pilot Boring EACH
Bent 1, Pier 1		1	1	1	1
Bent 2, Pier 1		1	1	1	1
TOTAL QUANTITY:		2	2	2	2

PROJECT NO. I-2513AC

BUNCOMBE COUNTY

STATION: 19+17.50 -Y2RPB-

SHEET 3 OF 4

NOTES:

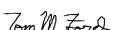
1. The Pile Foundation Tables are based on the bridge substructure design and foundation recommendations sealed by a North Carolina Professional Engineer (Stephen C. Crockett, #048207) on 02-04-2026.
2. Total Pile Driving Equipment Setup quantity (not shown in Pile Foundation Tables) equals the number of driven piles, i.e., the number of piles with a Required Driving Resistance.
3. The Engineer may adjust the quantity for DPT Testing, Pipe Pile Plates, Permanent Steel Casing, SPTs, TPL, CSL Testing, and SID Inspections when necessary.



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
 RALEIGH

PILE AND DRILLED PIER FOUNDATION TABLES

DocuSigned by:



 SIGNATURE DATE
 9/17/2026

REVISIONS						SHEET NO. S2-03
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS 44
1			3			
2			4			

**DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED**

FOR UTILITY INFORMATION, SEE UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH

STR. #2

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com/gfnet-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 Final/Plans/402_009_I2513AC_SMU_LRFR_S2-05_100905 8/4/2026 12:59:26 PM pdf_color_gfclt-F.S.plt Hominy-1-12-26.tbl

LOAD AND RESISTANCE FACTOR RATING (LRFR) SUMMARY FOR STEEL GIRDERS																								
LOAD TYPE		VEHICLE	WEIGHT (W) (TONS)	CONTROLLING LOAD RATING Ⓝ	MINIMUM RATING FACTORS (RF)	TONS = W x RF	STRENGTH I LIMIT STATE										SERVICE II LIMIT STATE						COMMENT NUMBER	
							LIVE-LOAD FACTORS (γ LL)	MOMENT			SHEAR				LIVE-LOAD FACTORS (γ LL)	MOMENT								
								DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	DISTRIBUTION FACTORS (DF)	RATING FACTOR		SPAN	GIRDER LOCATION	DISTANCE FROM LEFT END OF SPAN (ft)	DISTRIBUTION FACTORS (DF)	RATING FACTOR	SPAN	GIRDER LOCATION		DISTANCE FROM LEFT END OF SPAN (ft)
DESIGN LOAD		HL-93 (INVENTORY)	N/A	Ⓛ1	1.24	--	1.75	--	1.24	B	ER	160.00	--	1.99	C	ER	32.50	1.30	--	2.71	C	ER	92.86	
		HL-93 (OPERATING)	N/A		1.61	--	1.35	--	1.61	B	ER	160.00	--	2.58	C	ER	32.50	1.00	--	3.52	C	ER	92.86	
		HS-20 (INVENTORY)	36.000	Ⓛ2	3.60	129.60	1.75	--	3.71	B	ER	160.00	--	3.60	C	ER	162.50	1.30	--	4.61	C	ER	92.86	
		HS-20 (OPERATING)	36.000		4.67	168.16	1.35	--	4.80	B	ER	160.00	--	4.67	C	ER	162.50	1.00	--	6.00	C	ER	92.86	
LEGAL LOAD	SINGLE VEHICLE (SV)	SH	12.500		12.17	152.18	1.40	--	12.87	B	ER	160.00	--	12.17	C	ER	162.50	1.30	--	12.40	C	ER	92.86	
		S3C	21.500		7.15	153.66	1.40	--	7.62	B	ER	160.00	--	7.35	C	ER	162.50	1.30	--	7.15	C	ER	97.50	
		S3A	22.750		6.72	152.93	1.40	--	7.28	B	ER	160.00	--	6.72	C	ER	32.50	1.30	--	6.77	C	ER	97.50	
		S4A	26.750		5.86	156.76	1.40	--	6.20	B	ER	160.00	--	5.86	C	ER	162.50	1.30	--	5.92	C	ER	97.50	
		S5A	30.500		5.05	153.96	1.40	--	5.49	B	ER	160.00	--	5.05	C	ER	162.50	1.30	--	5.15	C	ER	97.50	
		S6A	34.500		4.55	157.01	1.40	--	4.89	B	ER	160.00	--	4.55	C	ER	162.50	1.30	--	4.64	C	ER	97.50	
		S7B	38.500		4.19	161.39	1.40	--	4.35	B	ER	160.00	--	4.19	C	ER	162.50	1.30	--	4.22	C	ER	92.86	
		S7A	40.000	Ⓛ3	4.06	162.44	1.40	--	4.26	B	ER	160.00	--	4.10	C	ER	162.50	1.30	--	4.06	C	ER	97.50	
	TRUCK TRACTOR SEMI-TRAILER (TTST)	T4A	28.250		5.51	155.69	1.40	--	5.94	B	ER	160.00	--	5.51	C	ER	162.50	1.30	--	5.79	C	ER	92.86	
		T5B	32.000		4.98	159.49	1.40	--	5.26	B	ER	160.00	--	5.14	C	ER	162.50	1.30	--	4.98	C	ER	97.50	
		T6A	36.000		4.48	161.42	1.40	--	4.69	B	ER	160.00	--	4.57	C	ER	162.50	1.30	--	4.48	C	ER	97.50	
		T7A	40.000		4.10	164.00	1.40	--	4.26	B	ER	160.00	--	4.13	C	ER	162.50	1.30	--	4.10	C	ER	97.50	
		T7B	40.000		4.17	166.88	1.40	--	4.25	B	ER	160.00	--	4.17	C	ER	32.50	1.30	--	4.30	C	ER	97.50	
EMERGENCY VEHICLE (EV)		EV2	28.750		5.46	156.89	1.30	--	5.73	B	ER	160.00	--	5.46	C	ER	162.50	1.30	--	5.57	C	ER	92.86	
		EV3	43.000	Ⓛ4	3.57	153.60	1.30	--	3.88	B	ER	160.00	--	3.57	C	ER	162.50	1.30	--	3.67	C	ER	97.50	
FATIGUE		HL-93 (INVENTORY)	γ=0.75				0.75																	

LOAD FACTORS:

DESIGN LOAD RATING FACTORS	LIMIT STATE	γ DC	γ DW
	STRENGTH I	1.25	1.50
	SERVICE II	1.00	1.00

NOTES:

MINIMUM RATING FACTORS ARE BASED ON THE STRENGTH I AND SERVICE II LIMIT STATES.

ALLOWABLE STRESSES FOR SERVICE II LIMIT STATE ARE AS REQUIRED FOR DESIGN.

COMMENTS:

- THE ORIGINAL DESIGN AND RATING OF THIS BRIDGE WERE BASED ON A GRILLAGE ANALYSIS. LIVE LOAD DISTRIBUTION FACTORS WERE NOT USED AND ARE NOT PROVIDED.
- FATIGUE RATING IS NOT REQUIRED OR REPORTED SINCE DEISIGN DOES NOT INCLUDE FATIGUE PRONE DETAILS.

Ⓝ CONTROLLING LOAD RATING

Ⓛ1 DESIGN LOAD RATING (HL-93)

Ⓛ2 DESIGN LOAD RATING (HS-20)

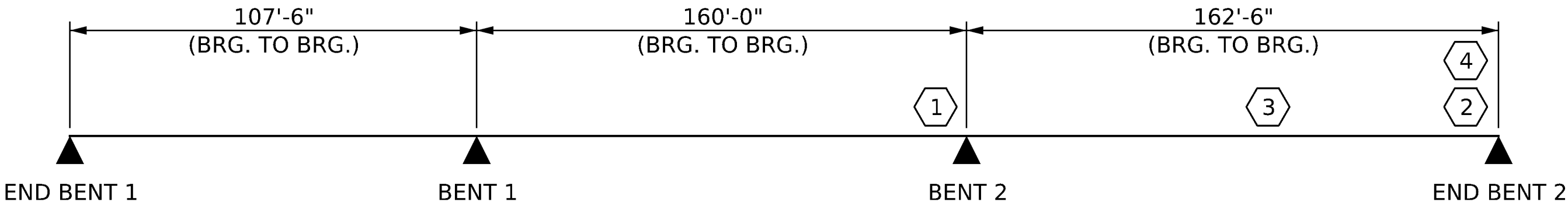
Ⓛ3 LEGAL LOAD RATING **

Ⓛ4 EMERGENCY VEHICLE LOAD RATING **

** SEE CHART FOR VEHICLE TYPE

GIRDER LOCATION

I - INTERIOR GIRDER
EL - EXTERIOR LEFT GIRDER
ER - EXTERIOR RIGHT GIRDER



LRFR SUMMARY

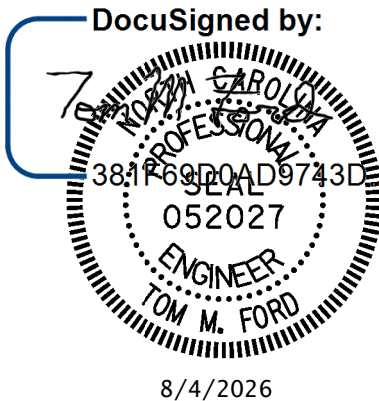
PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

ASSEMBLED BY:	J. HARRIS	DATE :	4/2024
CHECKED BY :	T. FORD	DATE :	6/2024
DRAWN BY :	MAA I/08	REV. 11/12/08RR	MAA/GM
CHECKED BY :	GM/DI 2/08	REV. 10/1/11	MAA/GM
		REV. 04/23	BNB/AAI



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



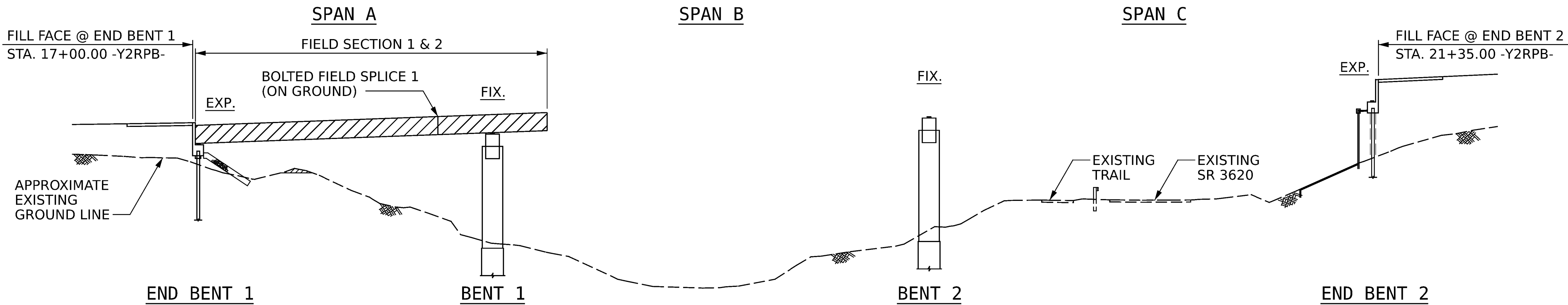
8/4/2026

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						STANDARD		SHEET NO. S2-05 TOTAL SHEETS 44
LRFR SUMMARY FOR STEEL GIRDERS								
(INTERSTATE TRAFFIC)								
REVISIONS								
NO.	BY:	DATE:	NO.	BY:	DATE:			
1			3					
2			4					

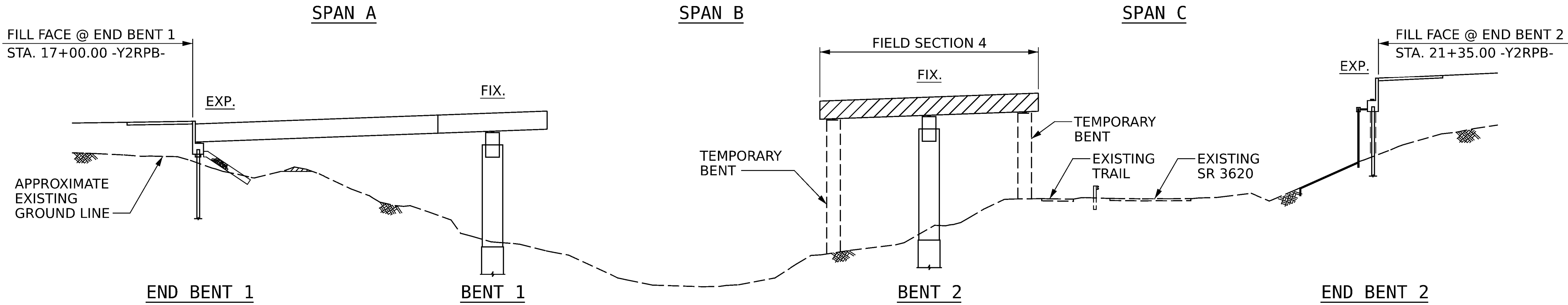
DocuSign Envelope ID: 2B6EC2A8-E0AF-817C-82A3-BBAC4191A095

dw://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_011_I2513AC4-SMU_GE_S2-06_100905

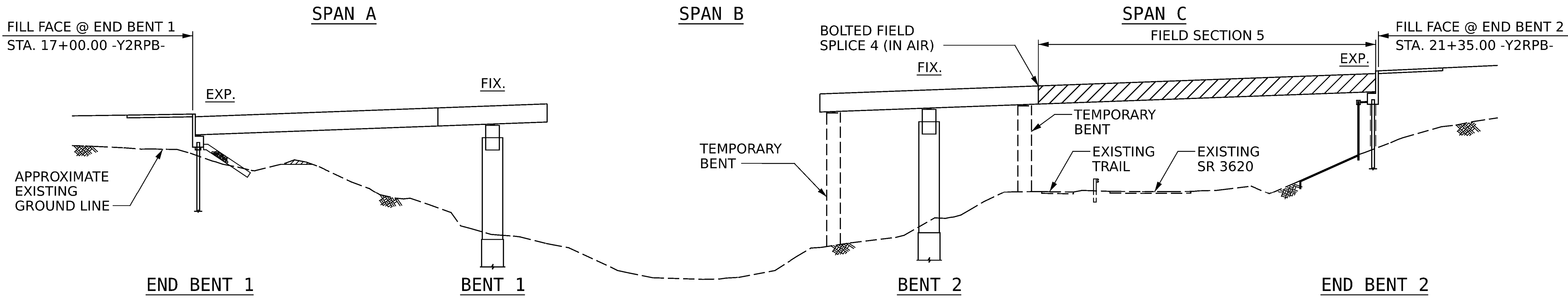
8/4/2026 12:59:41 PM pdf_color_gfclt.FS.plt Hominy-1-12-26.tb1



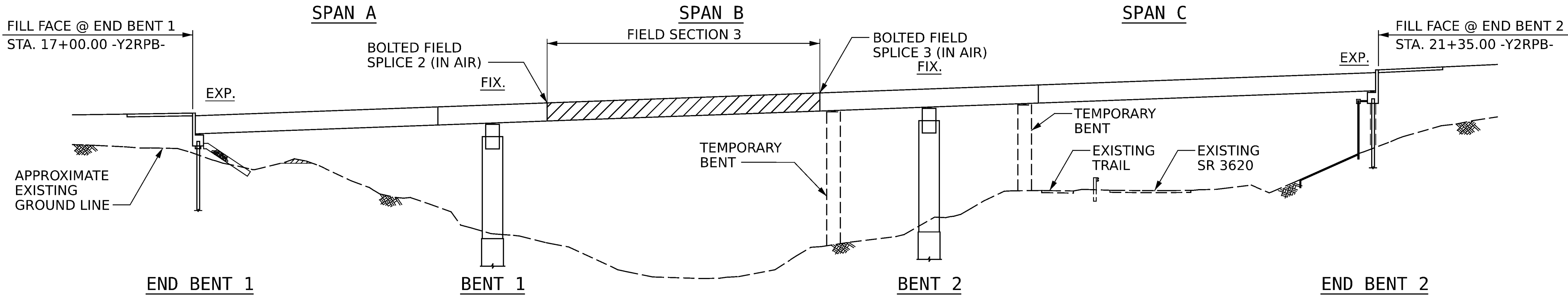
STAGE 1 GIRDER ERECTION



STAGE 2 GIRDER ERECTION



STAGE 3 GIRDER ERECTION



STAGE 4 GIRDER ERECTION

NOTES:

ERECT GIRDER SEGMENTS IN PAIRS WITH ALL CROSS-FRAMES AND DIAPHRAGMS IN PLACE AND BOLTS TIGHTENED PRIOR TO RELEASING THE GIRDERS.

THE STRUCTURAL STEEL SHALL BE SUPPORTED DURING ERECTION IN ITS CAMBERED POSITION. TEMPORARY BENTS SHALL SUPPORT ALL GIRDERS IN THE CROSS SECTION AND SHALL REMAIN IN PLACE UNTIL ALL GIRDER SECTIONS, CROSS-FRAMES AND DIAPHRAGMS ARE IN PLACE AND BOLTS ARE TIGHTENED. FOR TEMPORARY BENTS, SEE SPECIAL PROVISIONS.

DURING THE GIRDER ERECTION PROCEDURE, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TEMPORARY LATERAL BRACING AND OTHER MEANS OF SUPPORT, AS REQUIRED, TO ENSURE STABILITY OF THE GIRDERS, AVOID UPLIFT OF THE GIRDERS AT POINTS OF SUPPORT, AND MAINTAIN PLUMBNESS OF THE GIRDERS.

THE CONTRACTOR MAY SUBMIT ALTERNATE ERECTION METHODS. PLANS FOR SUCH ERECTION METHODS SHALL BE APPROVED BY THE ENGINEER. THE CONTRACTOR'S ERECTION PLANS SHALL INCLUDE A METHOD OF TEMPORARY SUPPORT REMOVAL THAT WILL UNIFORMLY TRANSFER THE STRUCTURAL WEIGHT TO THE DIAPHRAGMS AND CROSS-FRAMES WHILE THE GIRDERS REMAIN IN THE CAMBERED POSITIONS. PLANS FOR TEMPORARY BENT ERECTION AND REMOVAL SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

PLACEMENT OF TEMPORARY BENTS SHALL BE COORDINATED WITH TRAFFIC PHASING REQUIREMENTS. SEE TRAFFIC CONTROL PLANS FOR TRAFFIC PHASING DETAILS. THE CONTRACTOR SHALL ENSURE ADEQUATE CLEARANCES ARE PROVIDED BETWEEN TEMPORARY BENTS AND EDGE OF TRAVEL LANE.

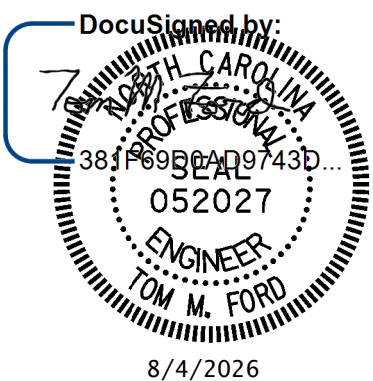
METHOD OF TEMPORARY BENT REMOVAL SHALL UNIFORMLY APPLY THE STRUCTURAL STEEL WEIGHT TO THE GIRDERS AND DIAPHRAGMS.

THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING THE TEMPORARY BENTS. THE DESIGN SHALL BE COMPLETED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA. THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED WORKING DRAWINGS AND CALCULATIONS FOR APPROVAL BY THE ENGINEER.

THE CONTRACTOR IS ADVISED THAT THE EXISTING GROUND UNDER THE PROPOSED BRIDGE MAY HAVE STEEP SLOPES AND/OR HEAVY VEGETATION.

NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR PROVIDING TEMPORARY BENTS. THE COST FOR ALL MATERIALS, EQUIPMENT, TOOLS, LABOR AND ANY INCIDENTALS NECESSARY TO PROVIDE THE TEMPORARY BENTS SHALL BE CONSIDERED INCIDENTAL TO THE LUMP SUM BID PRICE FOR THE STRUCTURAL STEEL.

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

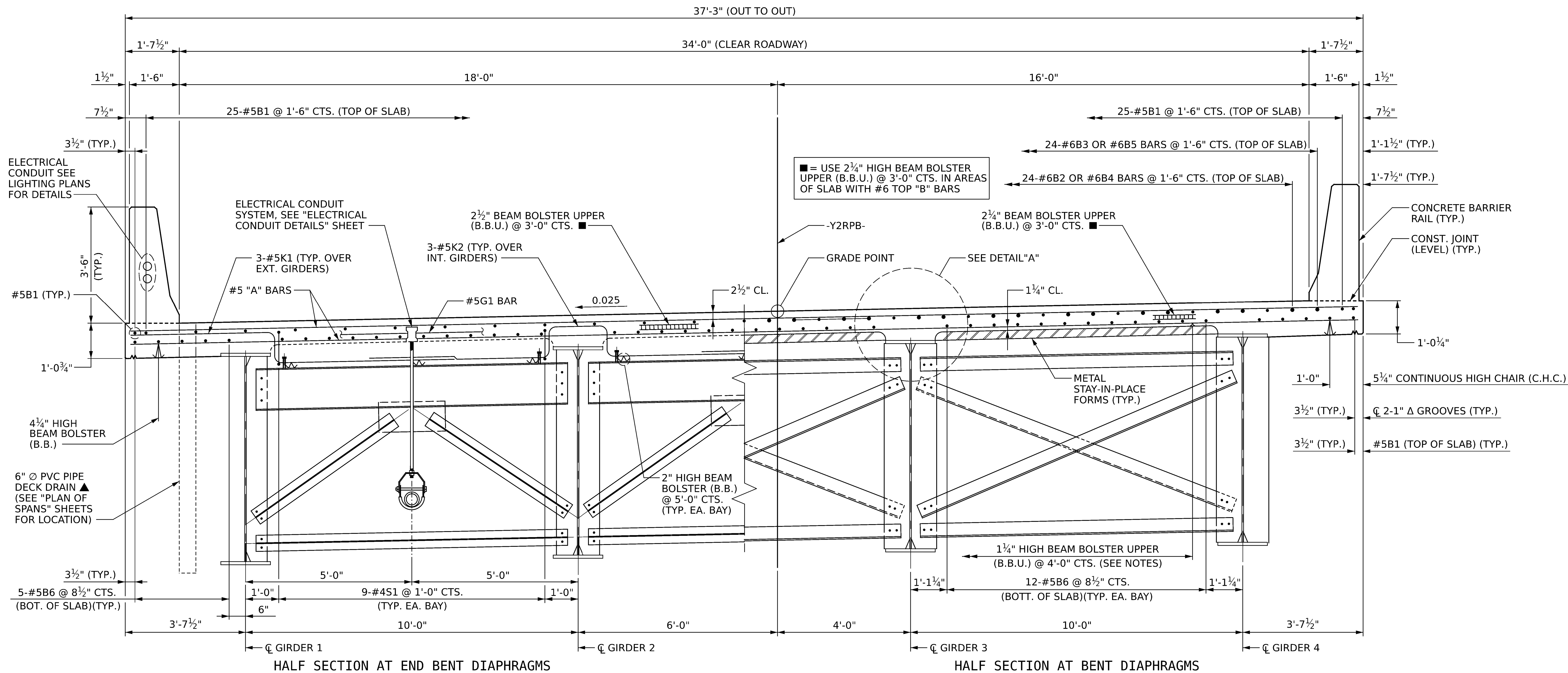
**GIRDER ERECTION
DETAILS**

DRAWN BY :	J. HARRIS	DATE :	4/2024
CHECKED BY :	J. FARNHAM	DATE :	6/2024
DESIGN ENGINEER OF RECORD:	T. FORD	DATE :	6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	REVISIONS						SHEET NO.	
	NO.	BY:	DATE:	NO.	BY:	DATE:	S2-06	
	1			3			TOTAL SHEETS	
	2			4			44	



NOTES:

PROVIDE 1¾" HIGH BEAM BOLSTERS UPPER (B.B.U.) AT 4'-0" CENTERS ATOP THE METAL STAY-IN-PLACE FORMS TO SUPPORT THE BOTTOM MAT OF "A" BARS. WHEN USING REMOVABLE FORMS, PROVIDE CONTINUOUS HIGH CHAIRS FOR METAL DECK (C.H.C.M.) AT 4'-0" CENTERS WITH A HEIGHT TO SUPPORT THE BOTTOM MAT OF "A" BARS A CLEAR DISTANCE OF 2½" ABOVE THE TOP OF THE REMOVABLE FORM.

METAL STAY-IN-PLACE FORMS AND FALSEWORK SHALL NOT BE WELDED TO THE GIRDER FLANGES IN THE ZONES REQUIRING CHARPY V-NOTCH TEST. SEE "STRUCTURAL STEEL DETAILS" SHEETS.

STRUCTURAL STEEL ERECTION IN A CONTINUOUS UNIT SHALL BE COMPLETE BEFORE FALSEWORK OR FORMS ARE PLACED ON THE UNIT.

PREVIOUSLY CAST CONCRETE IN A CONTINUOUS UNIT SHALL HAVE ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI BEFORE ADDITIONAL CONCRETE IS CAST IN THE UNIT.

BARRIER RAIL IN A CONTINUOUS UNIT SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THE UNIT HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI.

THE CONTRACTOR MAY, WHEN NECESSARY, PROPOSE A SCHEME FOR AVOIDING INTERFERENCE BETWEEN METAL STAY-IN-PLACE FORM SUPPORTS OR FORMS AND GIRDER STIFFENERS OR CONNECTOR PLATES. THE PROPOSAL SHALL BE INDICATED, AS APPROPRIATE, ON EITHER STEEL WORKING DRAWINGS OR THE METAL STA-IN-PLACE FORM WORKING DRAWINGS.

THE CONTRACTOR SHALL ADJUST THE GIRDER BUILD-UPS AS NECESSARY TO INCORPORATE A MAXIMUM PERMISSIBLE VARIATION IN DISC BEARING DEPTH OF 1/2". SEE DISC BEARING SPECIAL PROVISION.

FOR DECK DRAIN AND CONNECTOR DETAILS, SEE SHEET 2 OF 2.

LIGHTPOST SUPPORT BLISTER NOT SHOWN. FOR DETAILS, SEE "LIGHT POLE BLISTER DETAILS" SHEET.

PROJECT NO. **I-2513AC**

BUNCOMBE COUNTY

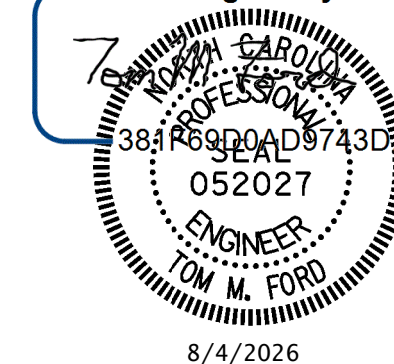
STATION: 19+17.50 -Y2RPB-

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
TYPICAL SECTION

— DocuSigned by:

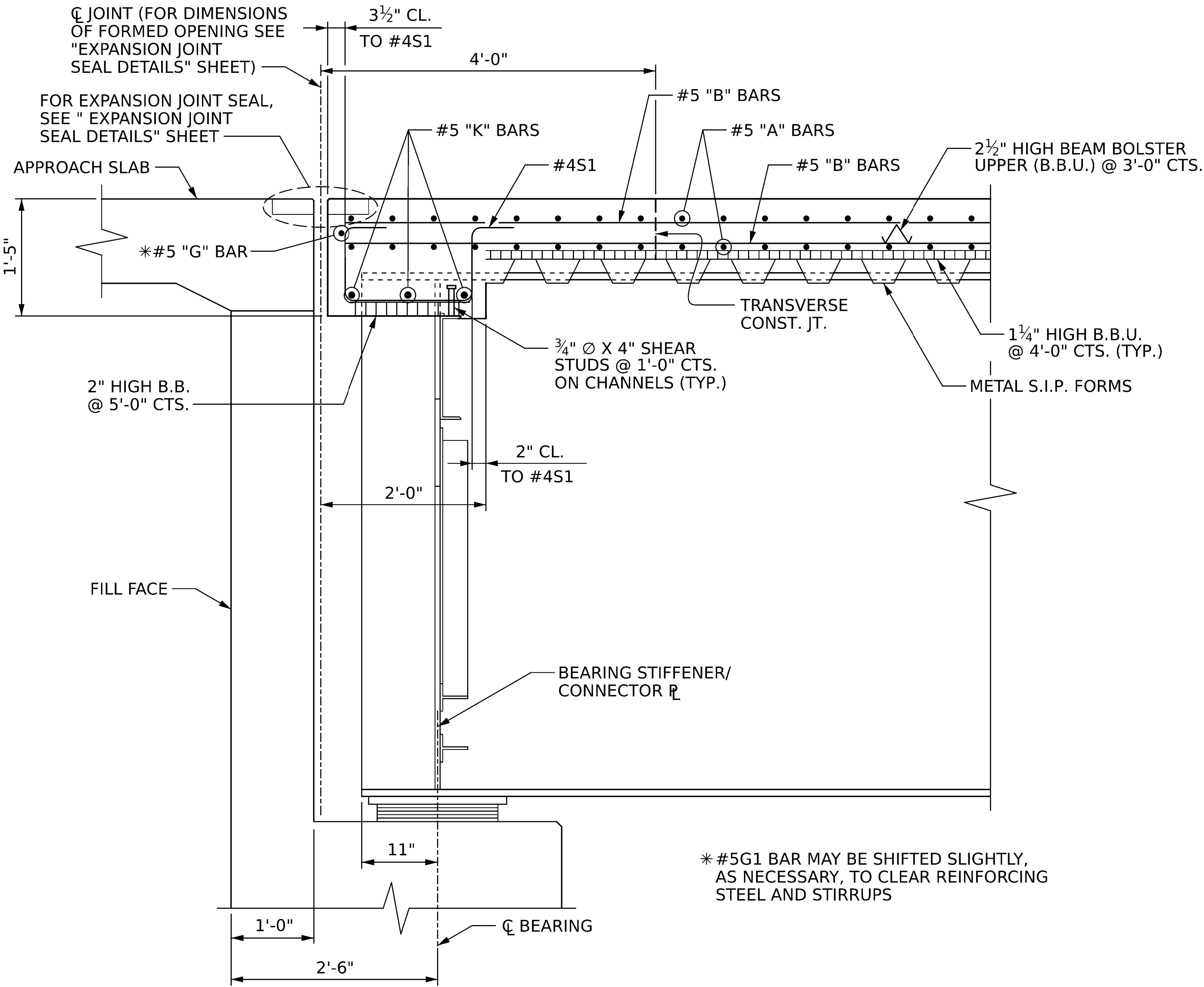


DRAWN BY : J. HARRIS DATE : 4/2024
 CHECKED BY : J. FARNHAM DATE : 6/2024
 DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

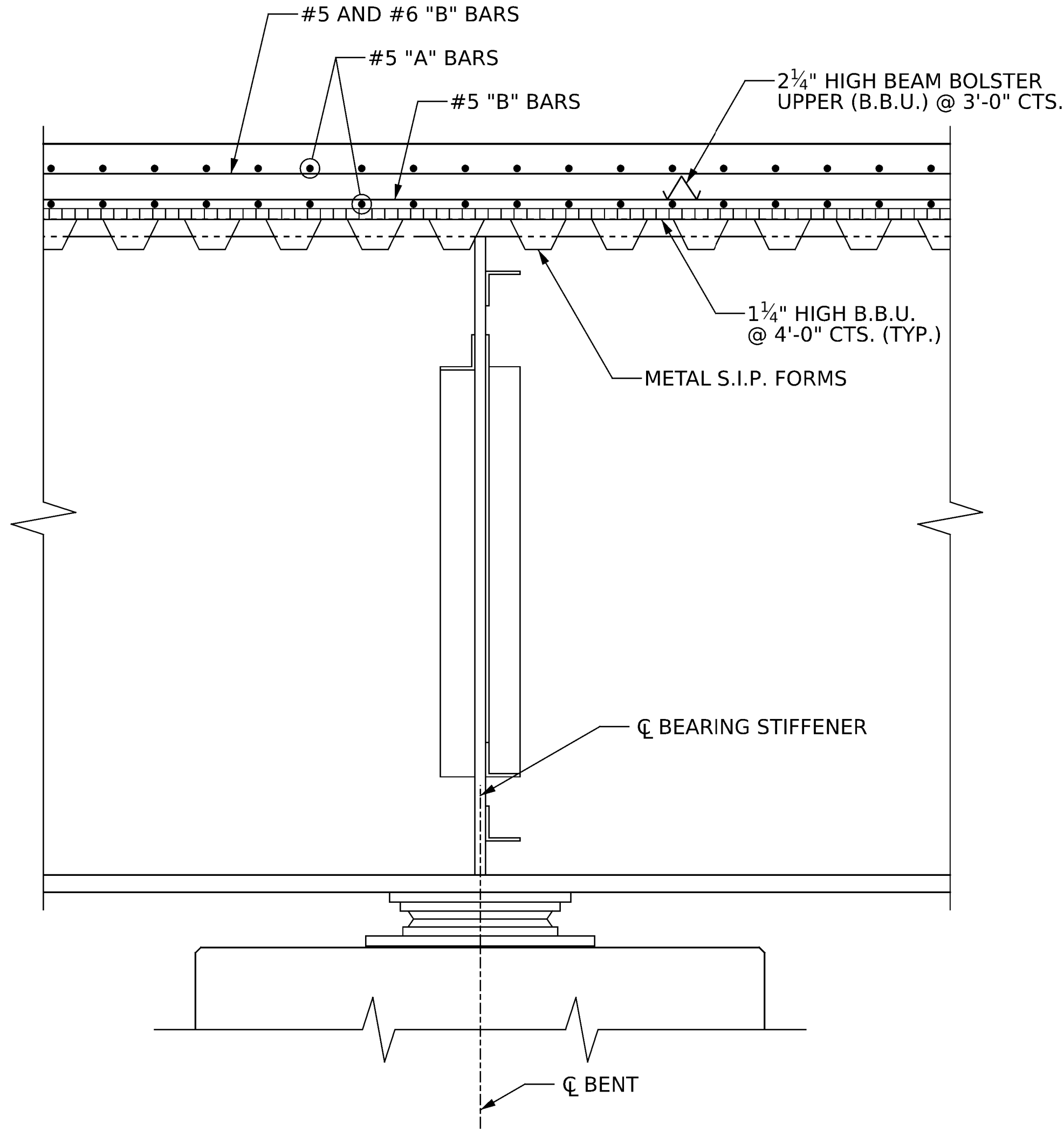
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO. S2-07
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

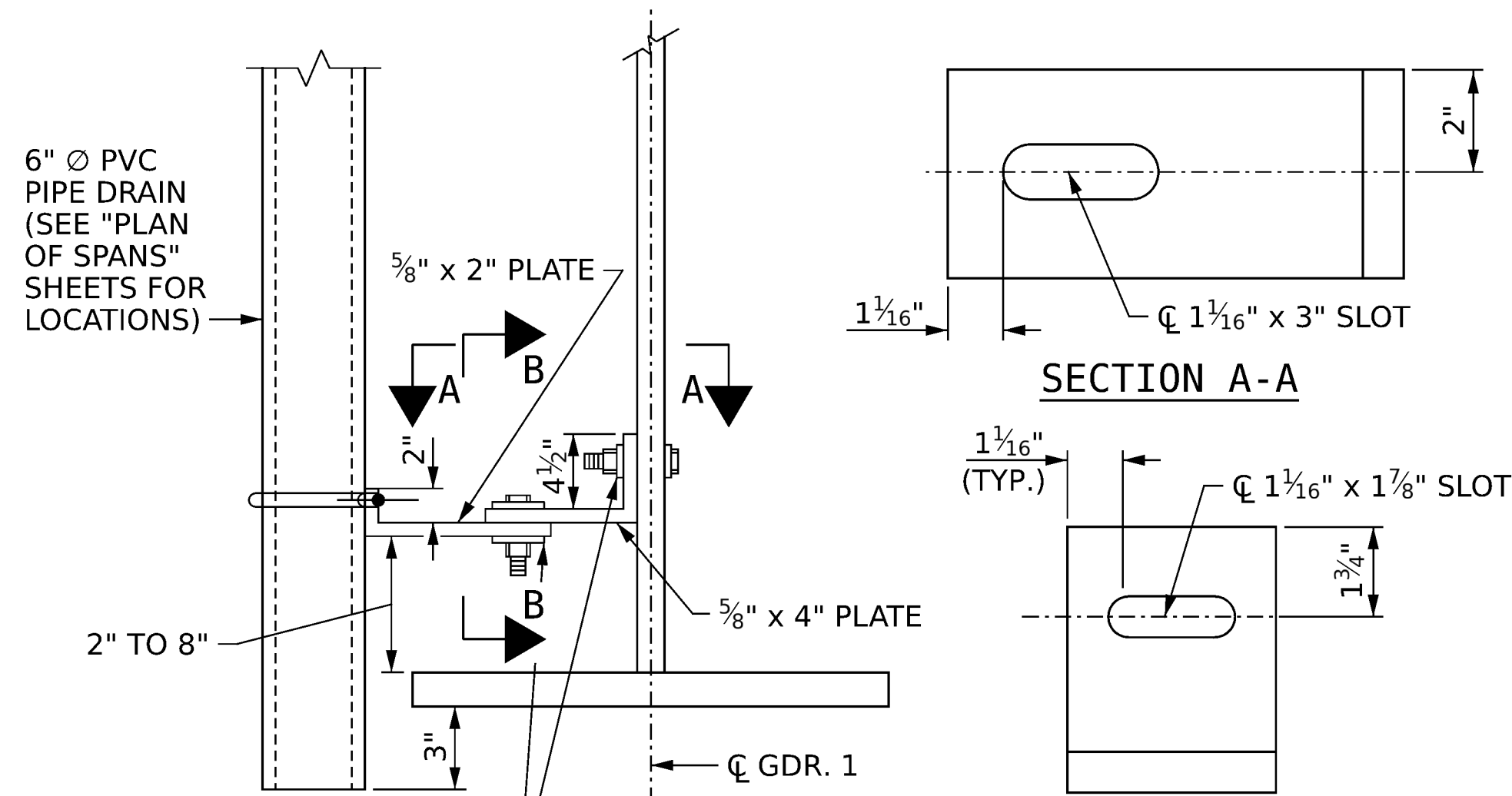
DocuSign Envelope ID: 2B6EC2A8-E0AF-817C-82A3-BBAC4191A095
pww://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402.015-I2513AC-SMU-TS2-S2-08_100905
8/4/2026 1:00:20 PM pdf_color_gfclt.FS.plt Hominy-1-12-26.tbl



SECTION AT END BENT



SECTION AT BENT



DRAIN CONNECTION DETAIL

(TOTAL ASSEMBLIES REQUIRED = 2)

DRAIN CONNECTOR NOTES:

COUPLING IN DRAIN PIPE WILL BE PERMITTED AS APPROVED BY THE ENGINEER.

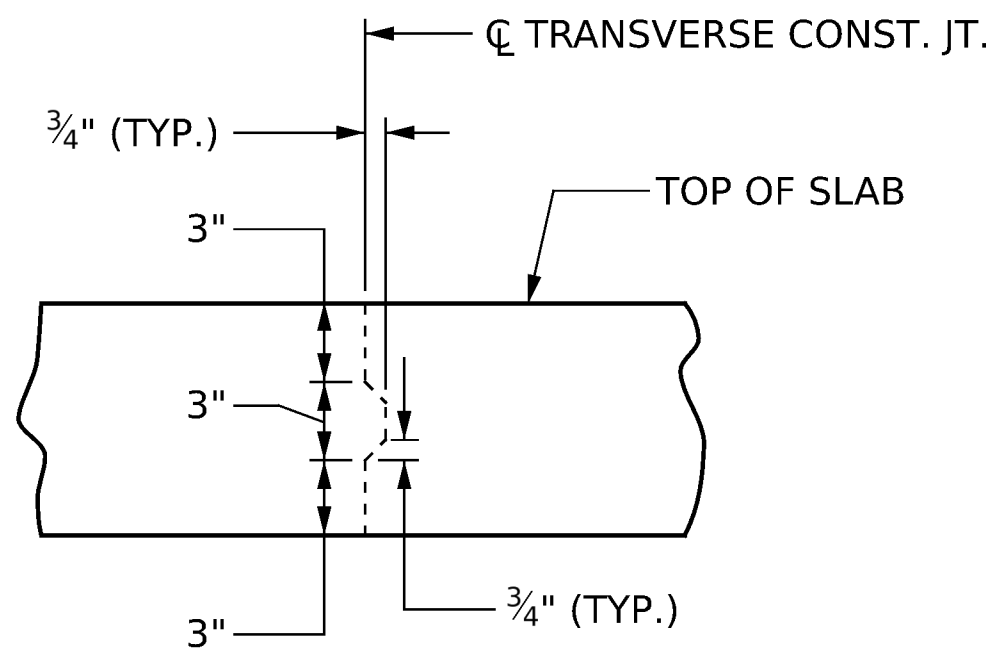
TOP OF THE FLOOR DRAIN TO BE SET 3/8 inch BELOW SURFACE OF SLAB.

4 - 1/2 inch SQUARE LUGS TO BE GLUED TO THE PVC PLASTIC PIPE AT EQUAL SPACES AROUND THE PIPE DRAIN APPROXIMATELY 4 inch FROM THE TOP OF THE PIPE.

BOLT SIZE TO BE THE SAME AS DIAPHRAGMS AND CROSS FRAME CONNECTIONS. STAINLESS STEEL WORM DRIVE HOSE CLAMP SHALL BE COMMERCIAL QUALITY.

THE 6 inch diameter PVC PLASTIC PIPE AND FITTINGS SHALL BE SCHEDULE 40 AND CONFORM TO ASTM D1785.

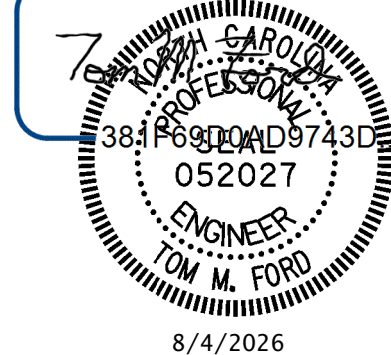
PVC DECK DRAINS SHALL BE PAINTED WITH TWO COATS OF BROWN PRIMER MEETING THE REQUIREMENTS OF ARTICLE 1080-11 OF THE STANDARD SPECIFICATIONS. EACH COAT SHALL BE 2 DRY MILS THICK. DECK DRAINS SHALL BE ROUGHENED PRIOR TO PAINTING. NO SEPARATE PAYMENT SHALL BE MADE FOR PAINTING PVC DECK DRAINS AS THIS IS CONSIDERED INCIDENTAL TO THE PAY ITEM FOR REINFORCED CONCRETE DECK SLAB.



TRANSVERSE CONSTRUCTION JOINT DETAIL

NOTE: REINFORCING STEEL IN SLAB NOT SHOWN FOR CLARITY. LONGITUDINAL REINFORCING SHALL BE CONTINUOUS THROUGH JOINT.

DocuSigned by:



8/4/2026

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE
**TYPICAL SECTION
& DETAILS**

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-08 TOTAL SHEETS 44
2			4			

STR. #2



RIGHT EDGE OF DECK SHOWN LEFT SIDE SIMILAR

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

DocuSigned by:
7 NORTH CAROLINA
PROFESSIONAL
38: F69D04D9743D
052027
ENGINEER
TOM M. FORD
8/4/2026

SHEET 1 OF 3

SPAN "A"

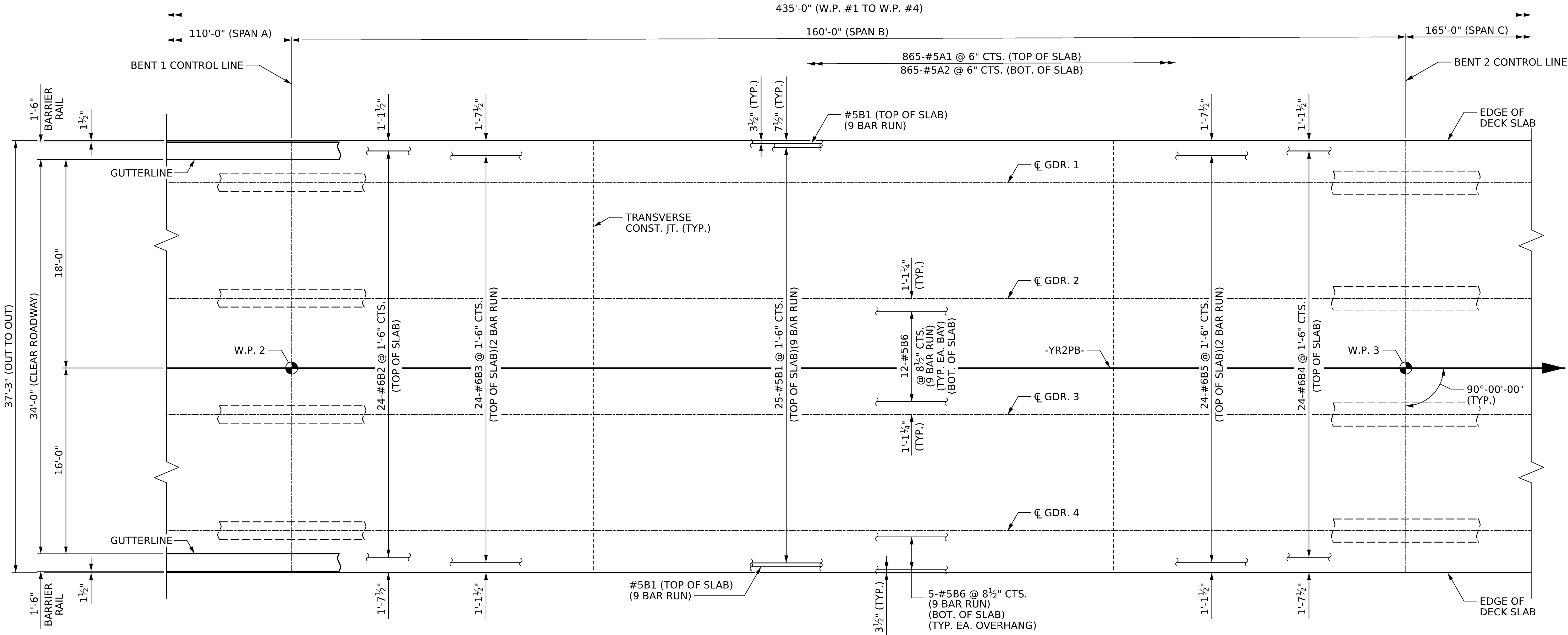
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-09
1			3			TOTAL SHEETS 44
2			4			

STR. #2

DocuSign Envelope ID: 2B6EC2A8-E0AF-817C-82A3-BBAC4191A095

dw://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_019_I2513AC_SMU_S2_S2-10-100905
8/4/2026 1:00:56 PM pdf_color_gfclt_FS.plt Hominy-1-12-26.tbl

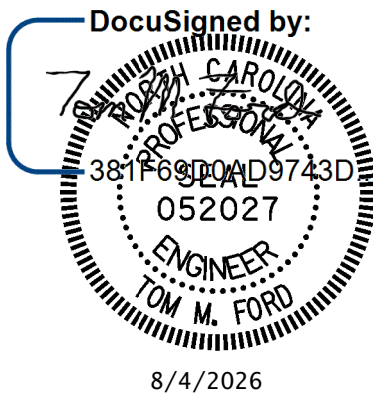
NOTES:
FOR NOTES, SEE SHEET 1 OF 3.



PLAN OF SPAN "B"

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 3



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
PLAN OF SPANS
SPAN "B"

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		S2-10
2			4		TOTAL SHEETS
					44

STR. #2

FOR NOTES, SEE SHEET 1 OF 3.



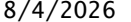
RIGHT EDGE OF DECK SHOWN LEFT SIDE SIMILAR

8/4/2026

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE
PLAN OF SPANS
SPAN "C"

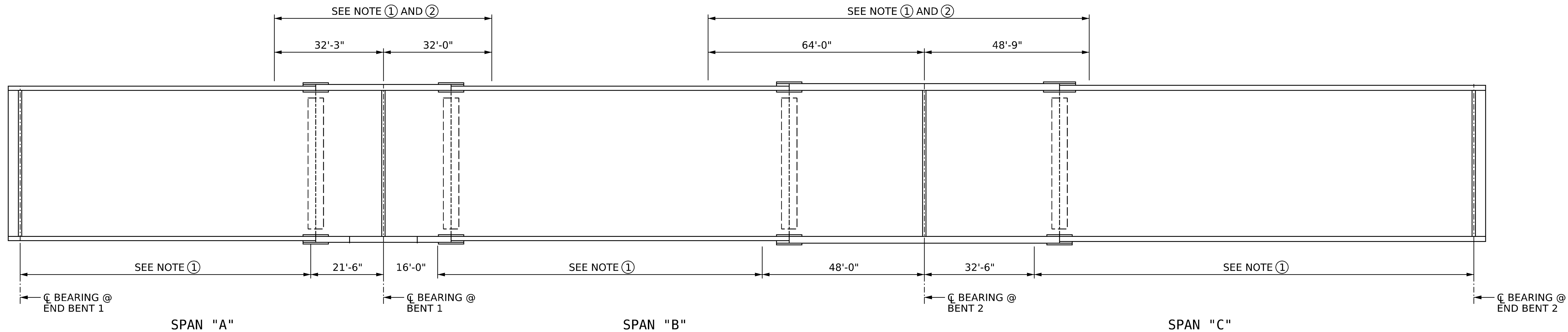
SHEET NO.	S2-11
TOTAL SHEETS	44

STR. #2



FRAMING PLAN

SHEET NO.
S2-12
TOTAL SHEETS
44



GIRDER MAKE UP

CHARPY V-NOTCH TESTS FOR CONTINUOUS PLATE GIRDERS

CHARP V-NOTCH NOTES:

- ① CHARPY V-NOTCH TESTS ARE REQUIRED FOR ALL TOP OR BOTTOM FLANGE PLATES WHICH FALL WITHIN THESE LIMITS. ALL WEB PLATES AND ALL SPLICE PLATES. IF A PERMITTED SHOP FLANGE SPLICE IS NOT USED, CHARPY V-NOTCH TESTS WILL BE REQUIRED FOR THE ENTIRE FLANGE PLATE. FOR CHARPY V-NOTCH TESTS, SEE ARTICLE 1072-7 OF THE STANDARD SPECIFICATIONS.
- ② NO WELDING OF FORMS OR FALSEWORK TO THE TOP FLANGE WILL BE PERMITTED IN THIS REGION.

- ② NO WELDING OF FORMS OR FALSEWORK TO THE TOP FLANGE WILL BE PERMITTED IN THIS REGION.

STRUCTURAL STEEL NOTES:

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 5 OR SYSTEM 6 OF THE STRUCTURAL STEEL SHOP COATINGS PROGRAM AND SECTION 442-8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.

ALL DIMENSIONS SHOWN ARE HORIZONTAL OR VERTICAL, UNLESS OTHERWISE NOTED.

ALL FIELD CONNECTIONS TO BE 7/8" DIA. HIGH STRENGTH BOLTS, UNLESS OTHERWISE NOTED.

BEARING STIFFENERS ARE TO BE PLACED NORMAL TO THE WEB OF THE GIRDER AND SHALL BE PLUMB.

BEARING STIFFENERS MAY REQUIRE COPING IF WIDER THAN BOTTOM FLANGE.

FABRICATOR SHALL DETAIL DIAPHRAGM MEMBERS AND CONNECTIONS FOR FULL DEAD LOAD FIT UP. GIRDERS SHALL BE PLUMB AFTER THE FULL AMOUNT OF DEAD LOAD IS APPLIED.

STUDS ON GIRDERS MAY BE SHIFTED UP TO 1 INCH IF NECESSEARY TO CLEAR FLANGE SPLICE WELD.

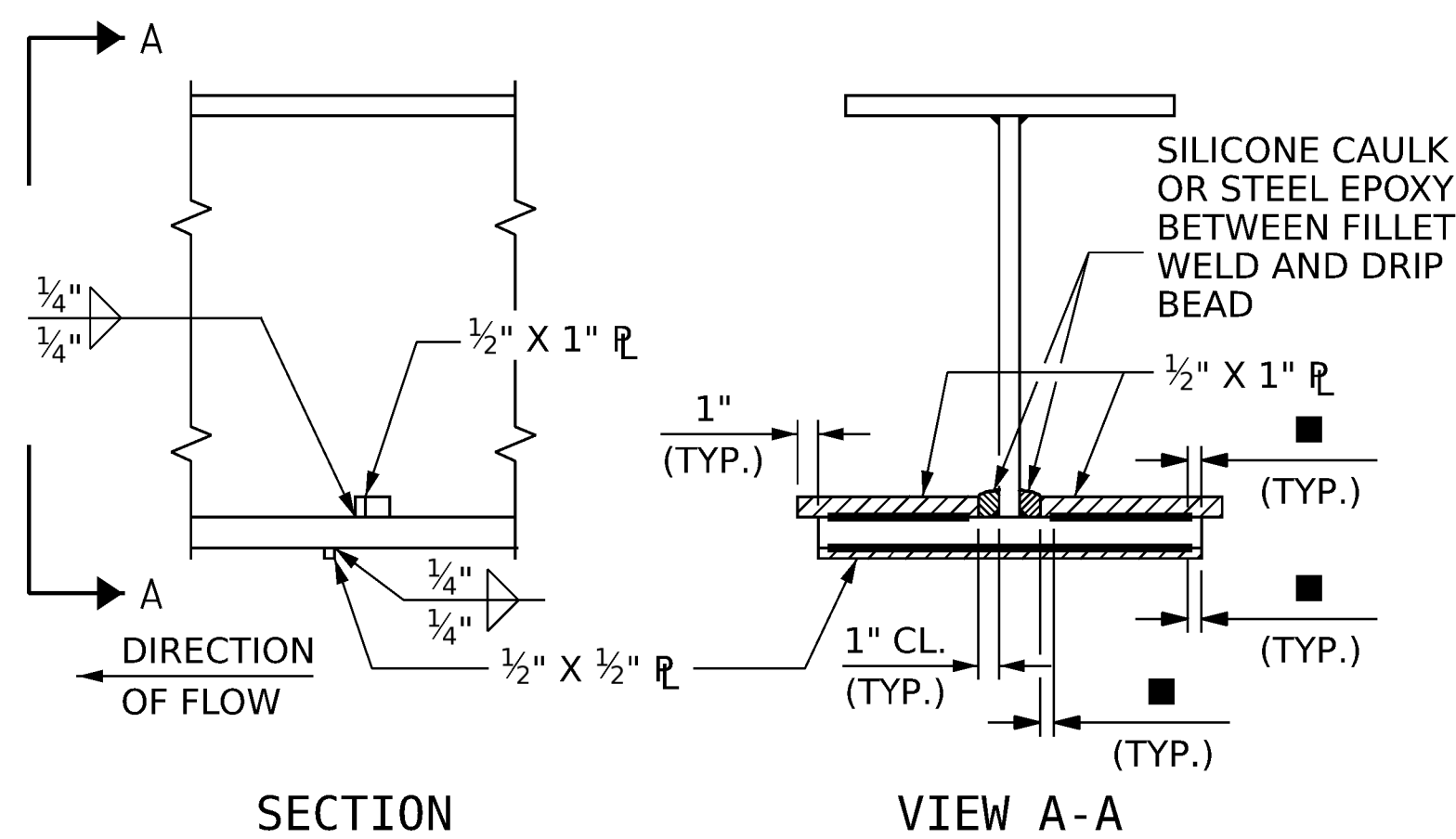
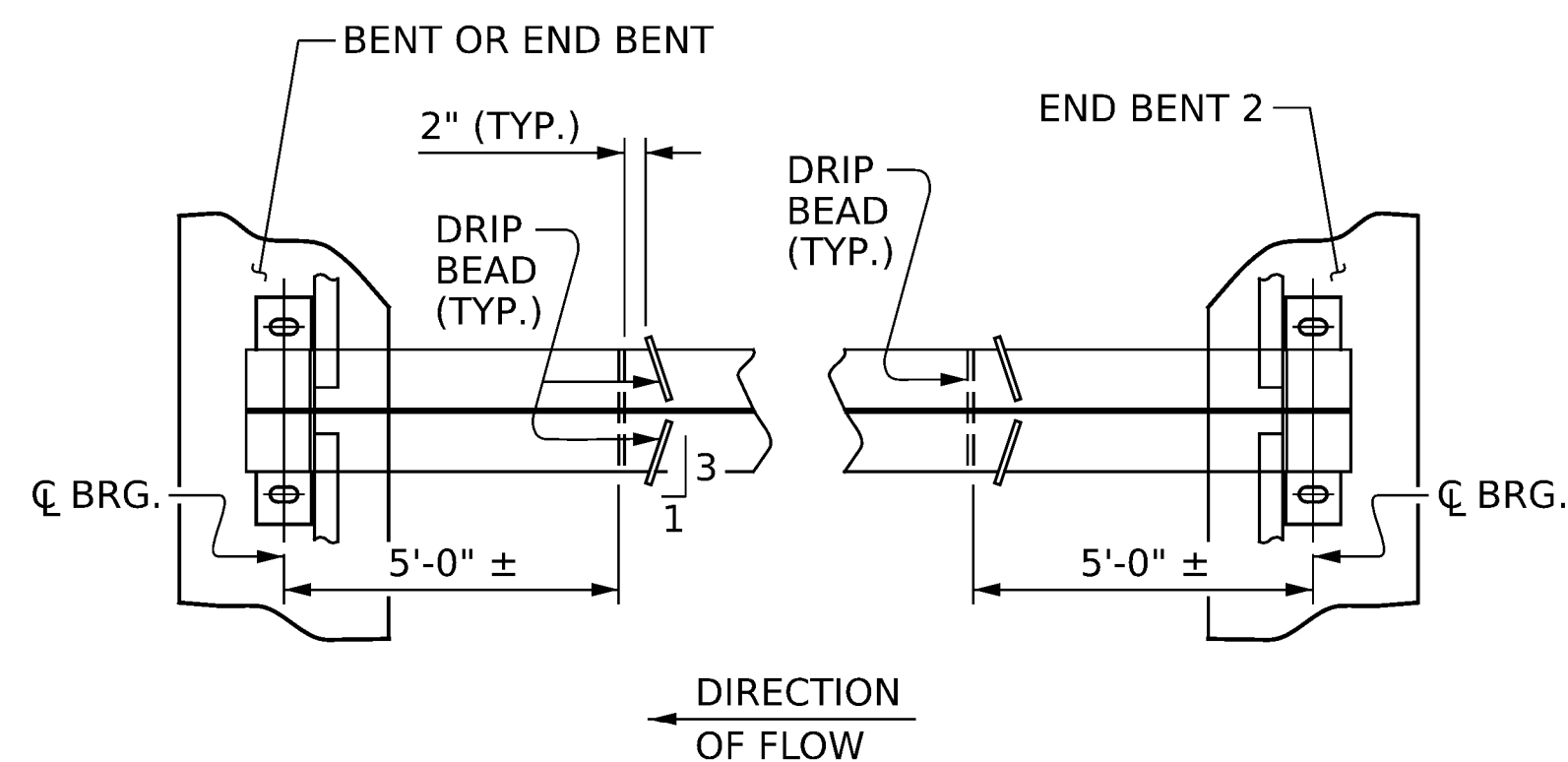
TENSION ON THE ASTM A325 BOLTS SHALL BE CALIBRATED USING DIRECT TENSION INDICATOR WASHERS IN ACCORDANCE WITH ARTICLE 440-8 OF THE STANDARD SPECIFICATIONS.

STRUCTURAL STEEL ERECTION IN A CONTINUOUS UNIT SHALL BE COMPLETED BEFORE FALSEWORK OR FORMS ARE PLACED ON THE UNIT.

PERMITTED FLANGE AND WEB SHOP SPLICES SHALL NOT BE LOCATED WITHIN 15 FEET OF MAXIMUM DEAD LOAD DEFLECTION (NOR WITHIN 15 FEET OF INTERMEDIATE BEARINGS OF CONTINUOUS UNITS). KEEP 2 FEET MINIMUM BETWEEN WEB AND FLANGE SHOP SPLICES. KEEP 6" MINIMUM BETWEEN CONNECTOR PLATE OR TRANSVERSE STIFFENER WELDS AND WEB OR FLANGE SHOP SPLICES.

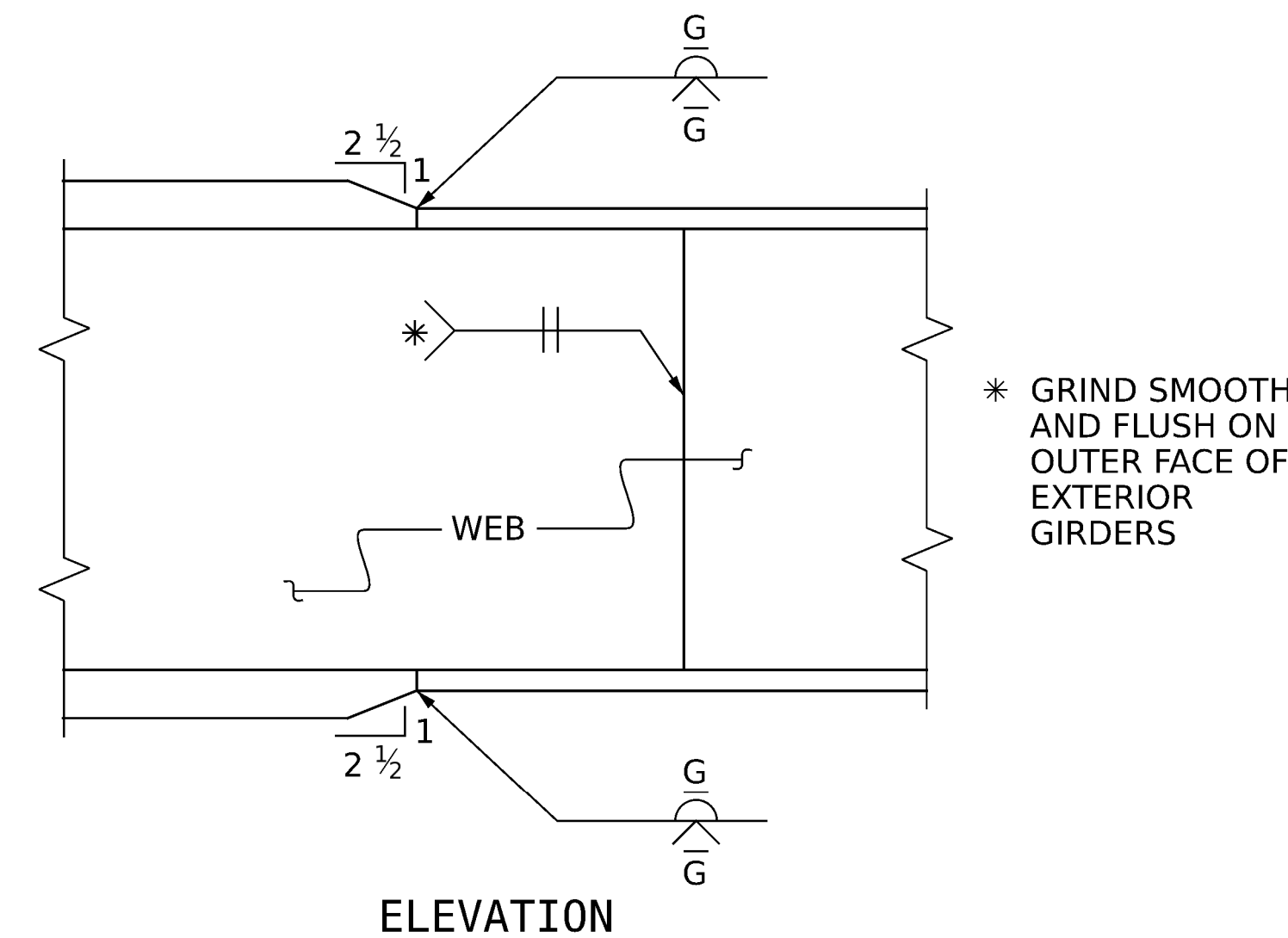
THE CONTRACTOR MAY, WHEN NECESSARY, PROPOSE A SCHEME FOR AVOIDING INTERFERENCE BETWEEN METAL STAY-IN-PLACE FORM SUPPORTS OR FORMS AND BEAM/GIRDER STIFFENERS OR CONNECTOR PLATES. THE PROPOSAL SHALL BE INDICATED, AS APPROPRIATE, ON EITHER THE STEEL WORKING DRAWINGS OR THE METAL STAY-IN-PLACE FORM WORKING DRAWINGS.

ENDS OF GIRDERS SHALL BE PLUMB.



DRIP BEAD DETAILS

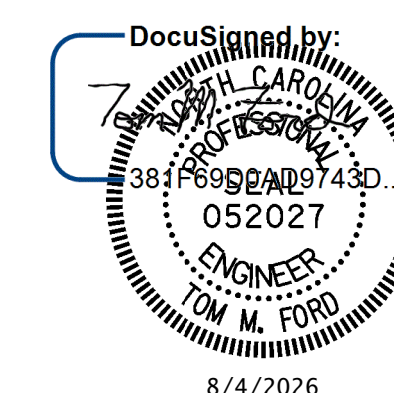
- SEE WELD TERMINATION
DETAILS SHEET 3 OF 5.

PROJECT NO. **I-2513AC**

BUNCOMBE COUNTY

STATION: 19+17.50 -Y2RPB-

SHEET 2 OF 5



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE STRUCTURAL STEEL DETAILS

DRAWN BY : J. HARRIS DATE : 4/2024
 CHECKED BY : J. FARNHAM DATE : 6/2024
 DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET 1 S2-1
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

SHEET 1

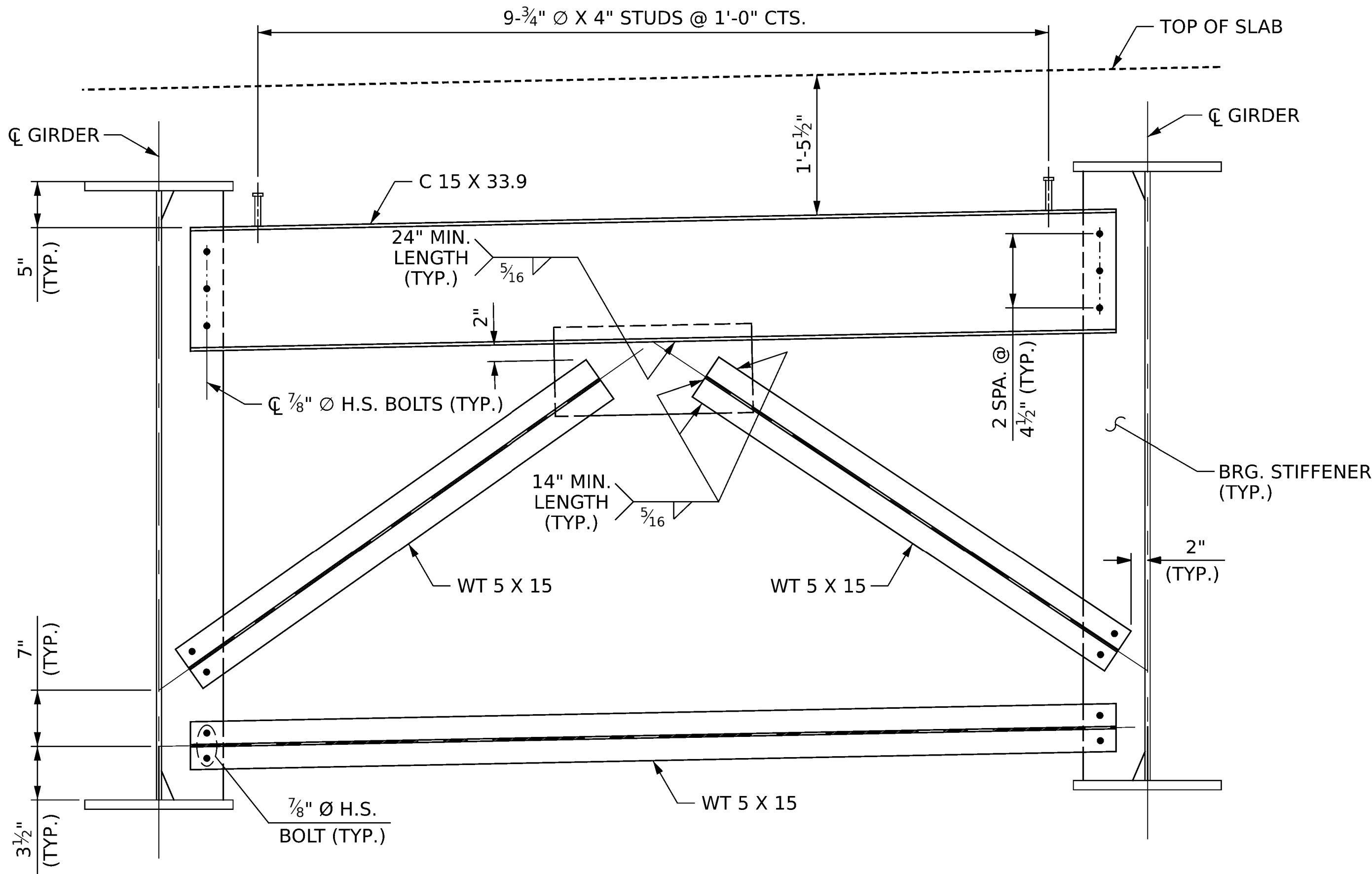
S2.14

TOTAL

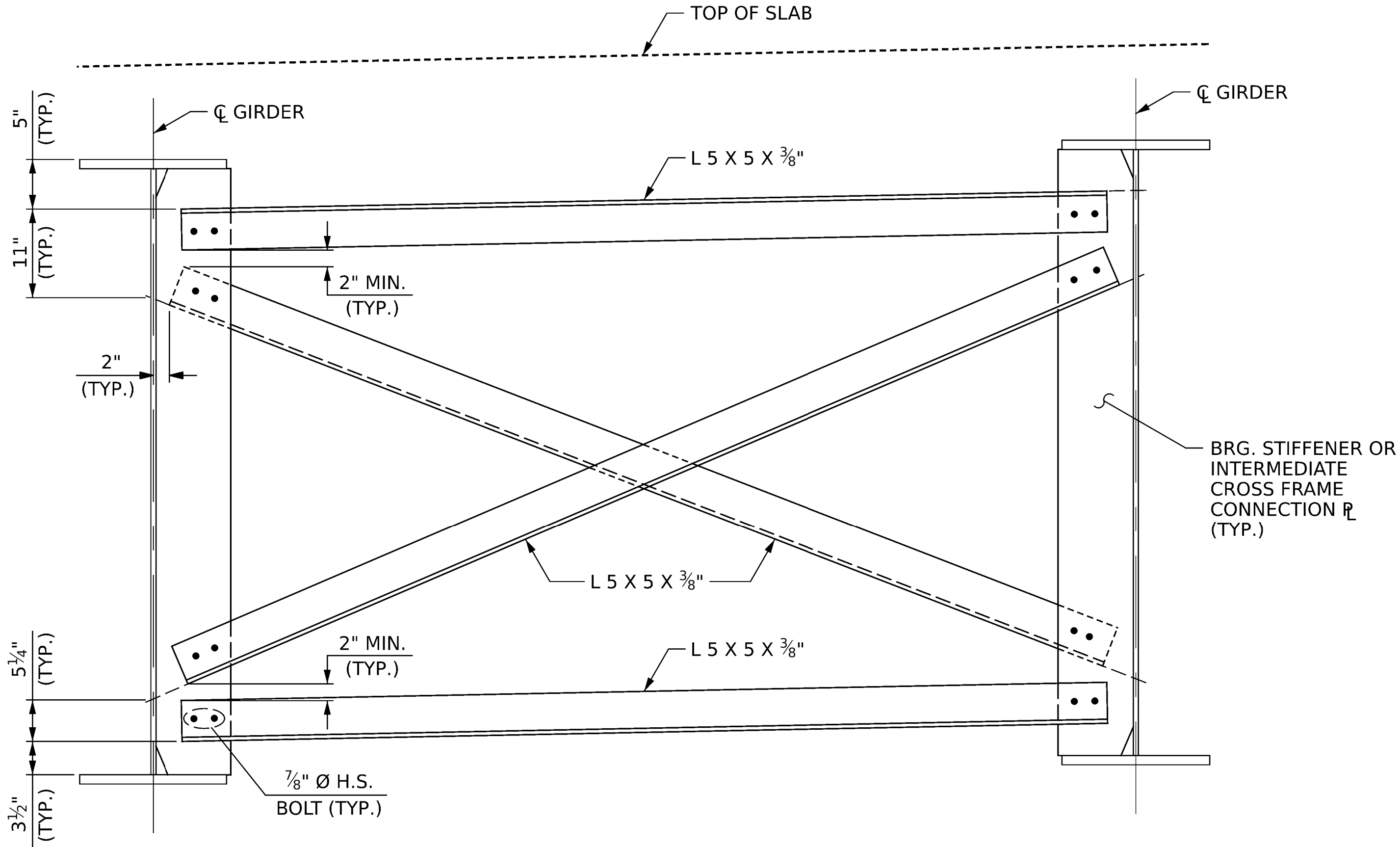
SHEETS
4.4

STR. #2

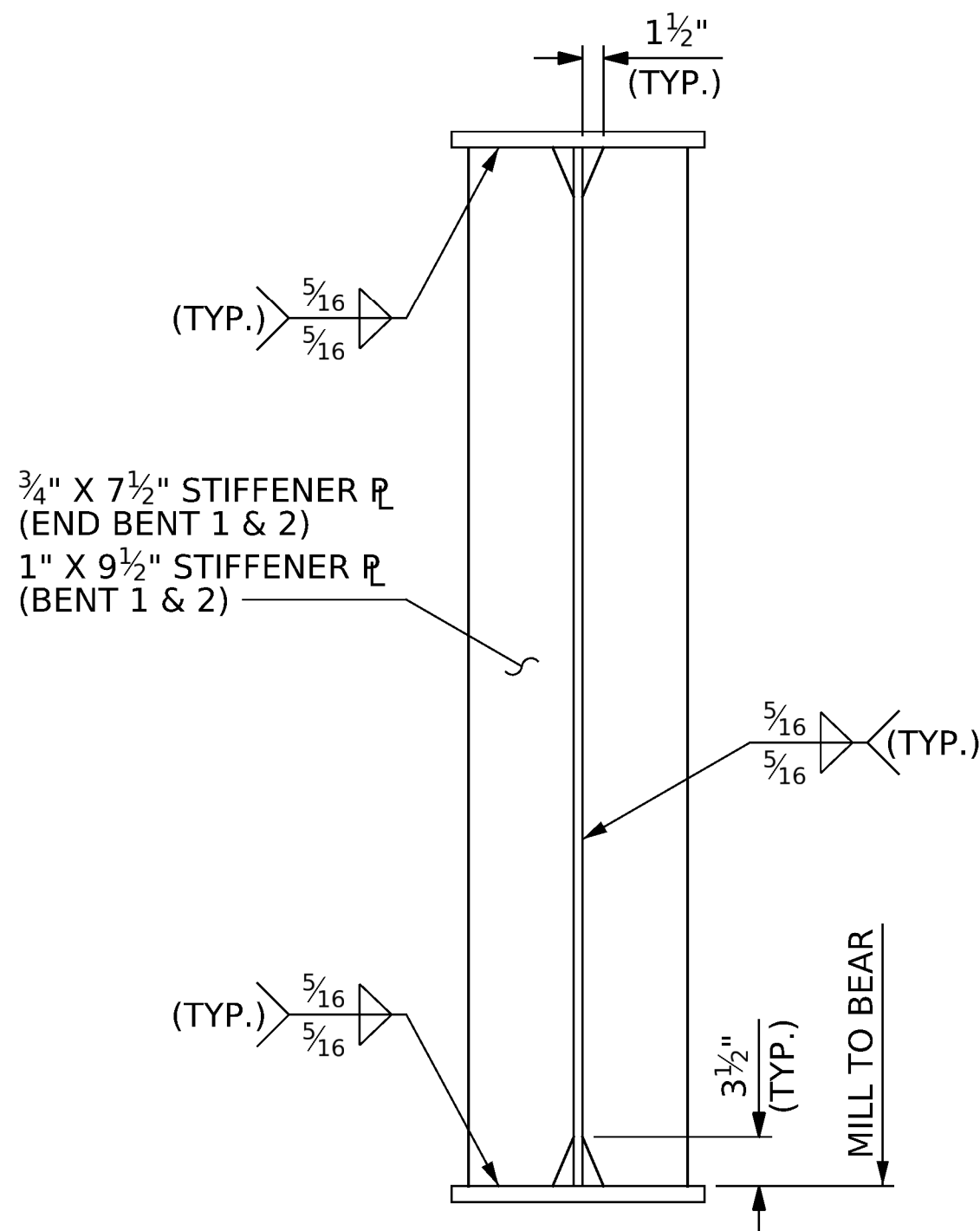
D:\gfn\gfnet-pw\Documents\Projects\68347\5-Working\Task 002 - I-2513AC Final\Structures\CAD\2.0 FinalPlans\402_029_I2513AP_SMU_SS3_S2-15_100905
 8/4/2026 1:02:13 PM pdf_color_gfclt.FS.plt Hominy-1-12-26.tbl
 D:\gfn\gfnet-pw\Documents\Projects\68347\5-Working\Task 002 - I-2513AC Final\Structures\CAD\2.0 FinalPlans\402_029_I2513AP_SMU_SS3_S2-15_100905



END BENT DIAPHRAGM (D1)

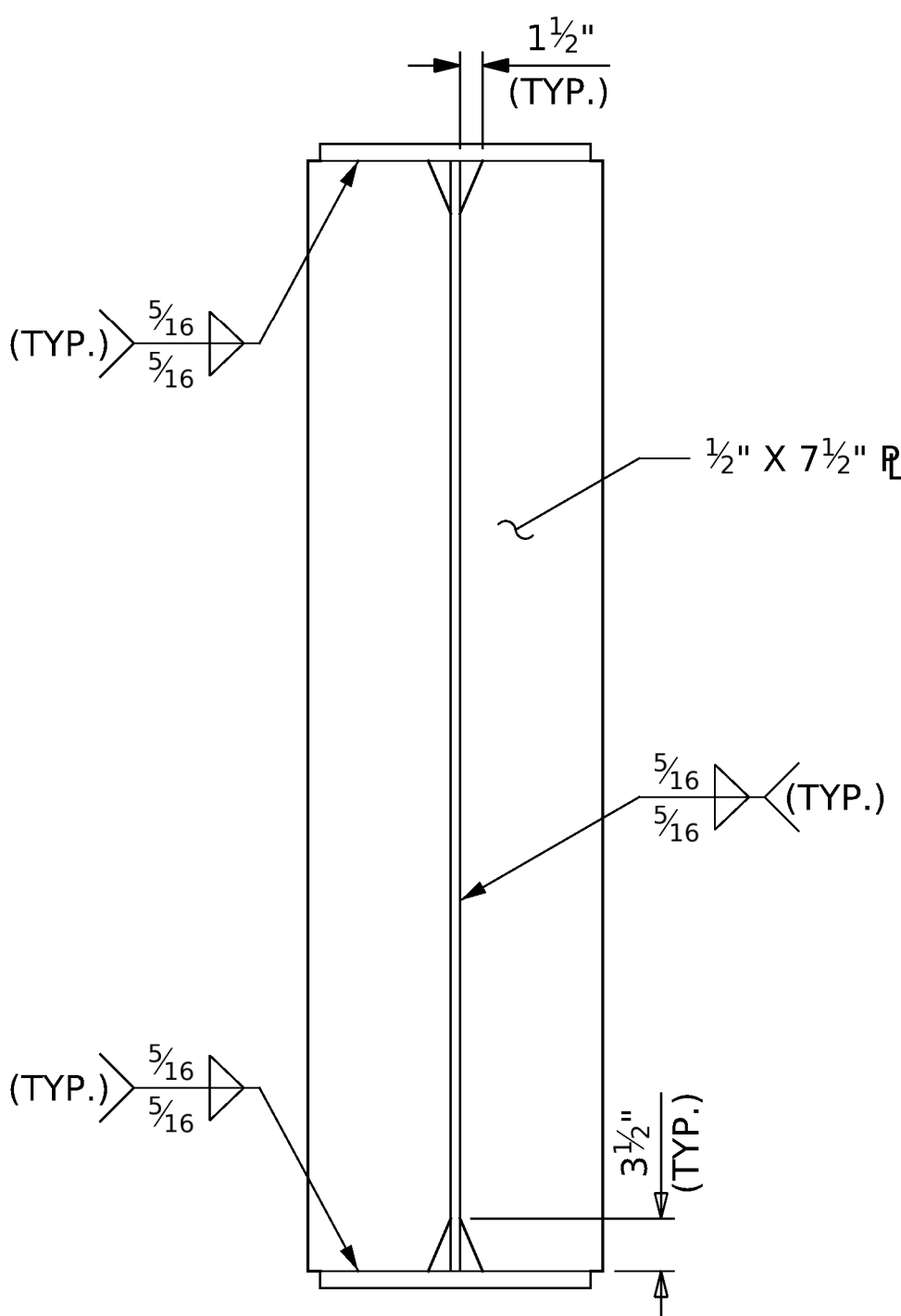


INTERMEDIATE CROSS FRAME (D2) & BENT DIAPHRAGM (D3)

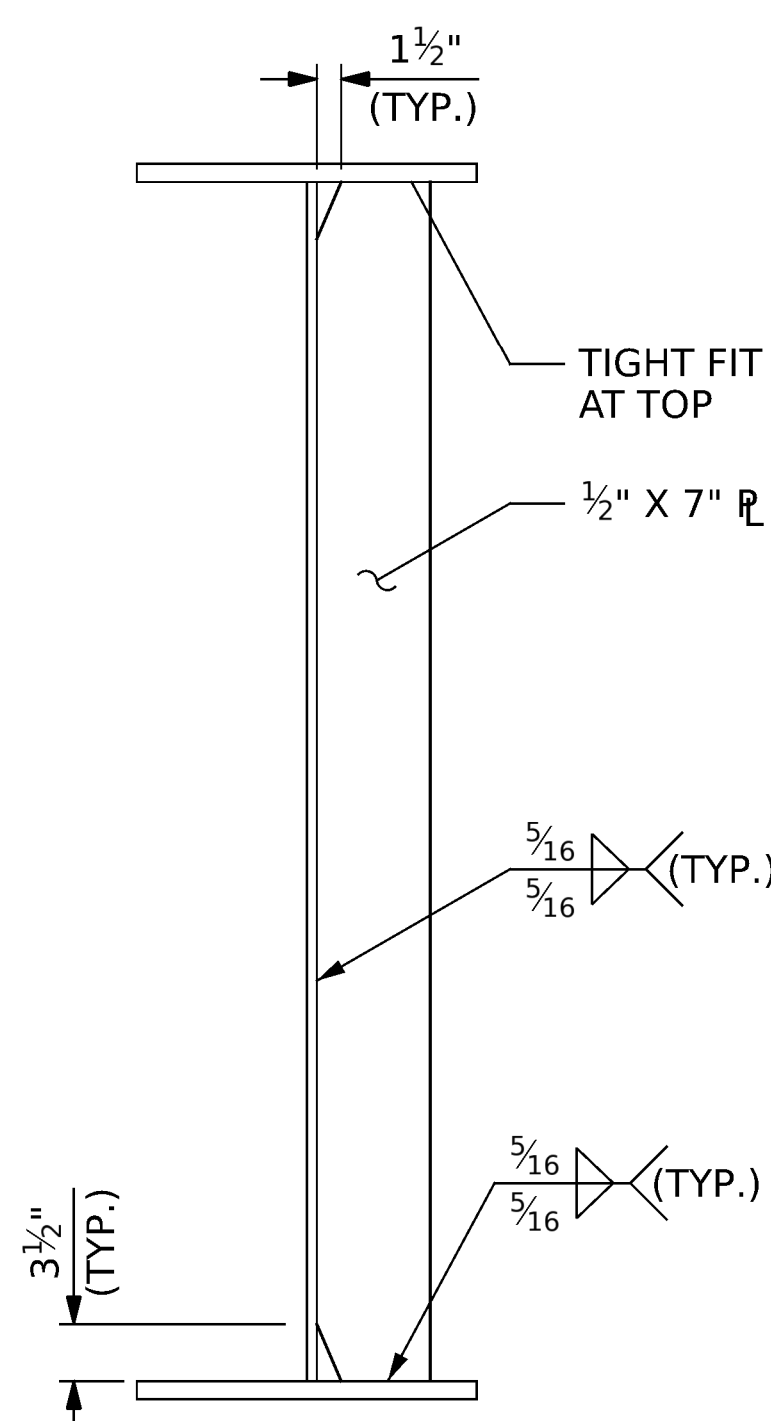


BEARING STIFFENER DETAIL

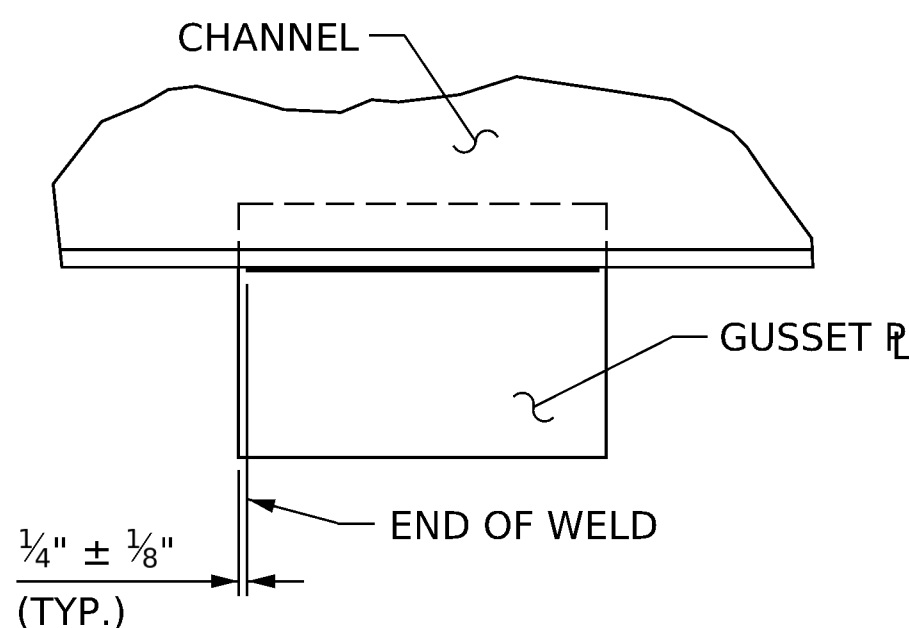
BEARING STIFFENER MAY REQUIRE COPING IF WIDER THAN BOTTOM FLANGE



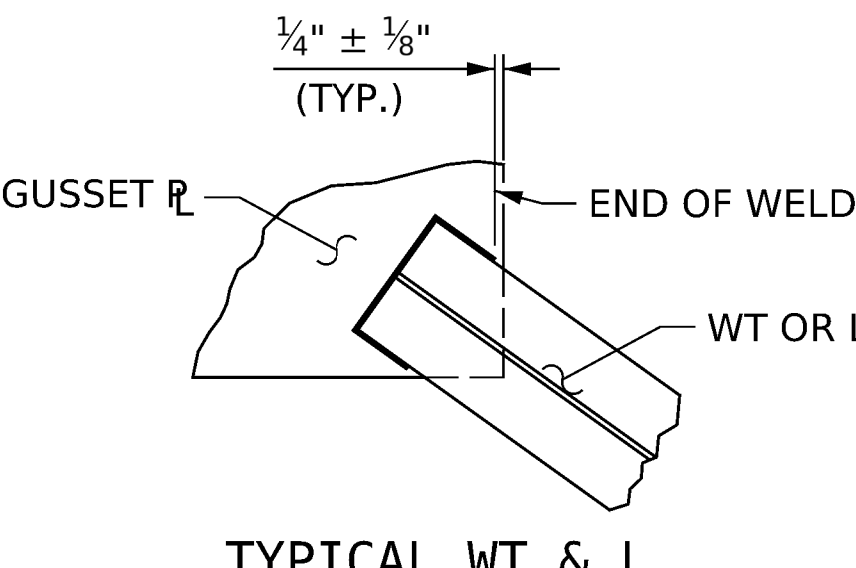
INTERMEDIATE CROSS FRAME CONNECTOR PLATE DETAIL



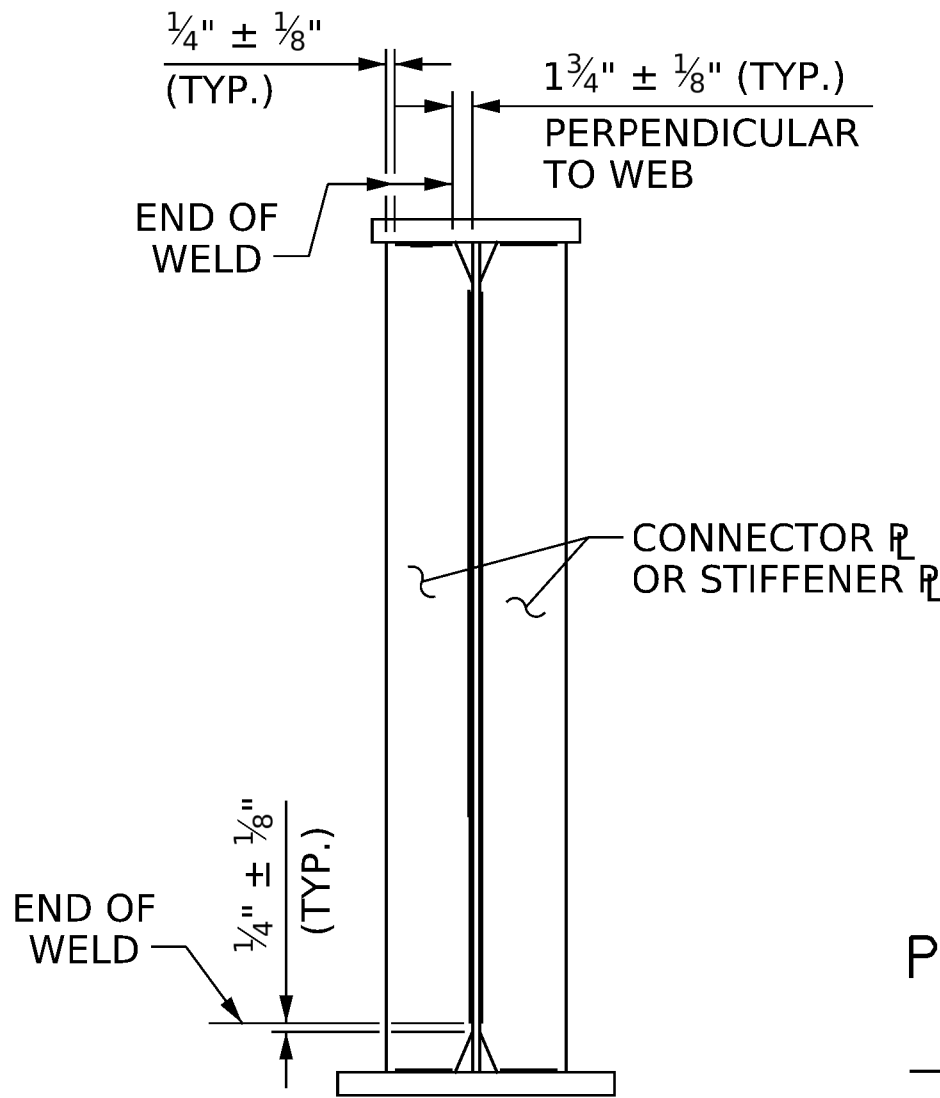
INTERMEDIATE TRANSVERSE STIFFENER DETAIL



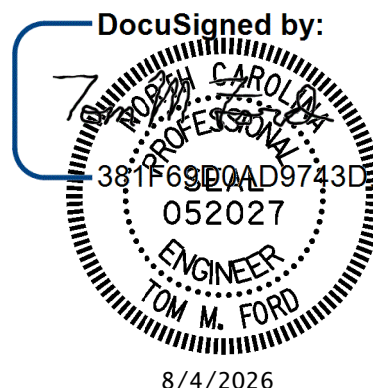
TYPICAL GUSSET PLATE CONNECTION



TYPICAL WT & L TO GUSSET PLATE CONNECTION



TYPICAL STIFFENER OR CONNECTOR PLATE CONNECTIONS (INTERIOR GIRDER SHOWN, HOLES NOT SHOWN)



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
 STATION: **19+17.50 -Y2RPB-**
 SHEET 3 OF 5

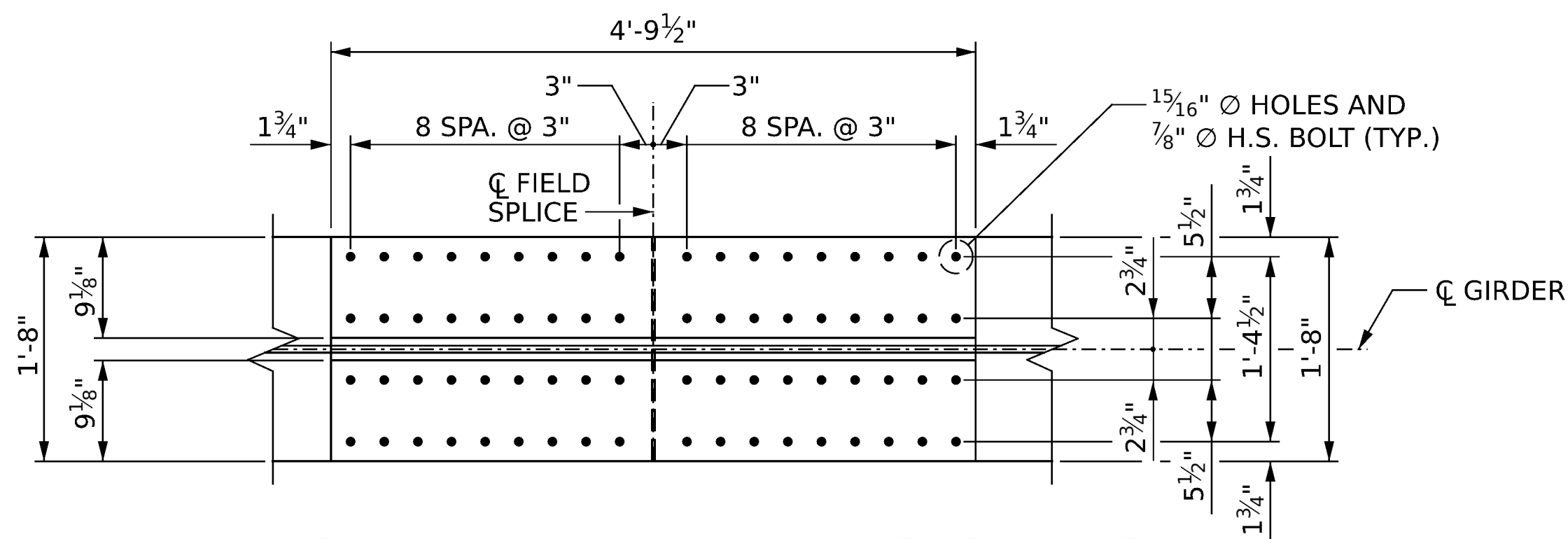
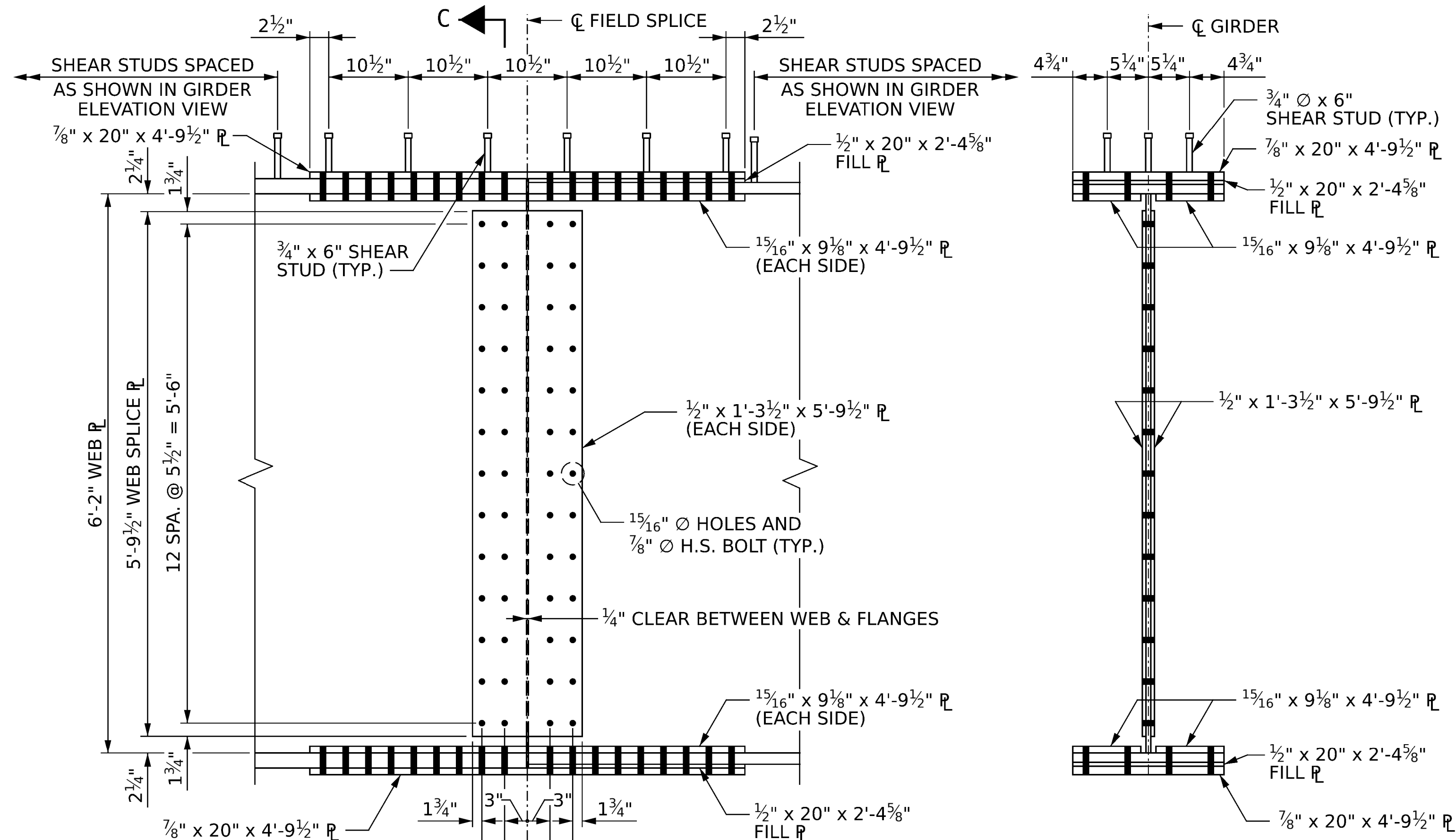
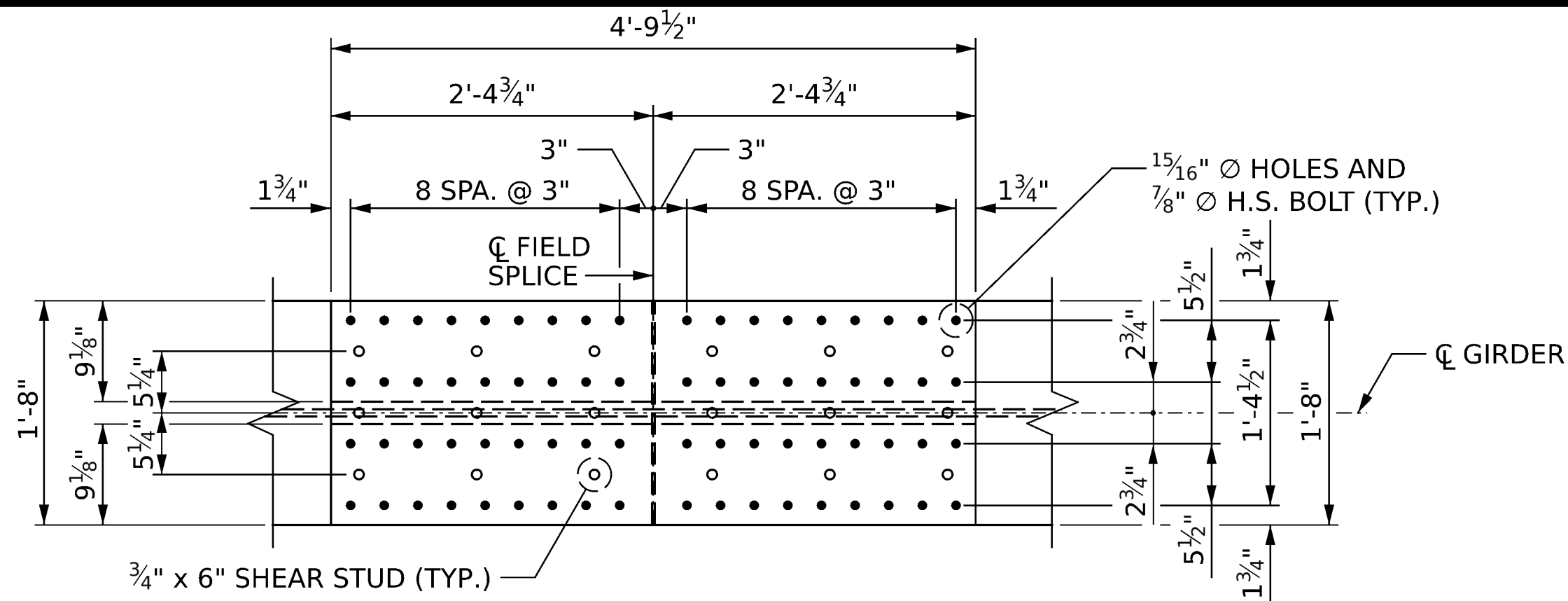
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-15
2			4			
TOTAL SHEETS						44

STR. #2



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

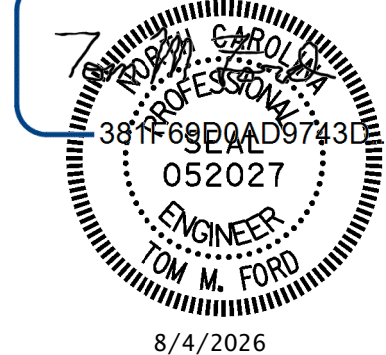
SHEET 5 OF 5

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUPERSTRUCTURE

STRUCTURAL STEEL DETAILS

- DocuSigned by



8/4/2026

DRAWN BY : J. HARRIS DATE : 4/2024
 CHECKED BY : J. FARNHAM DATE : 6/2024
 DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024



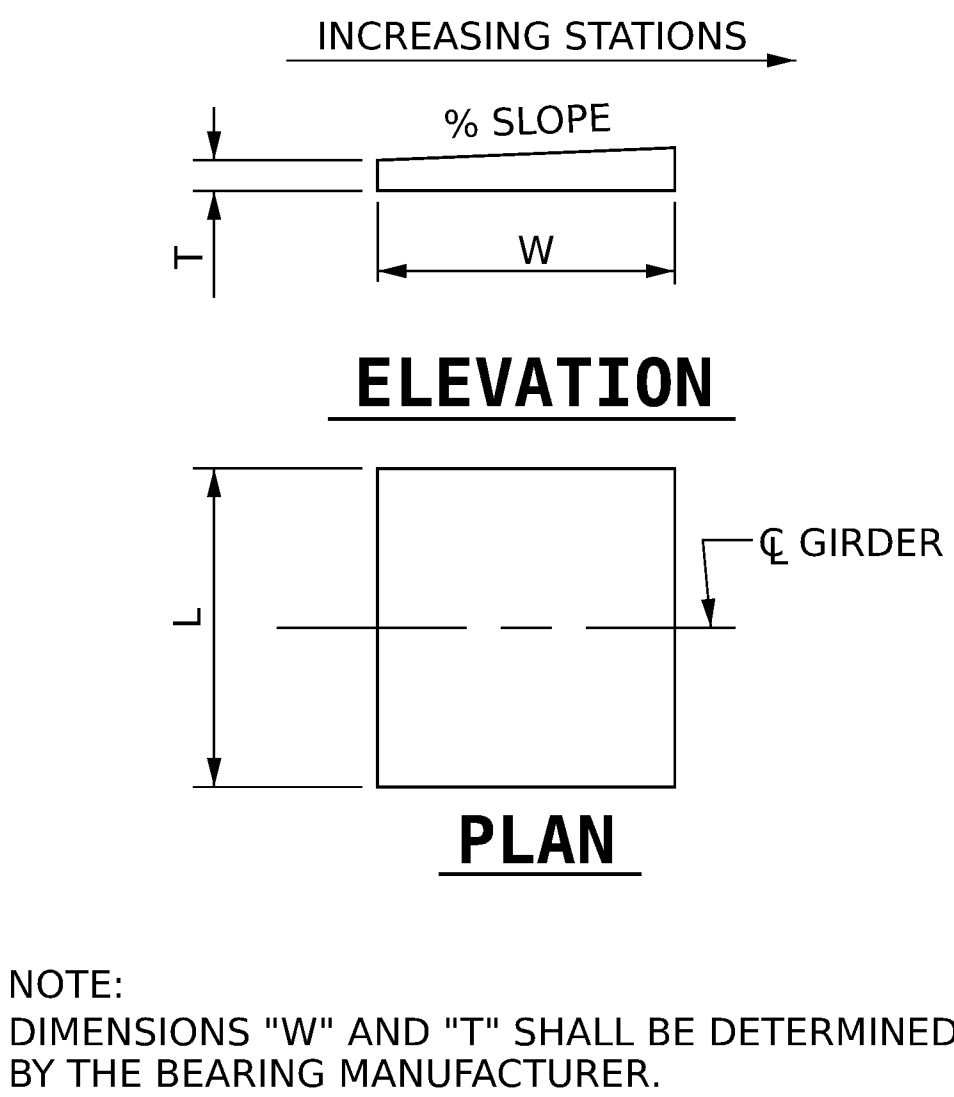
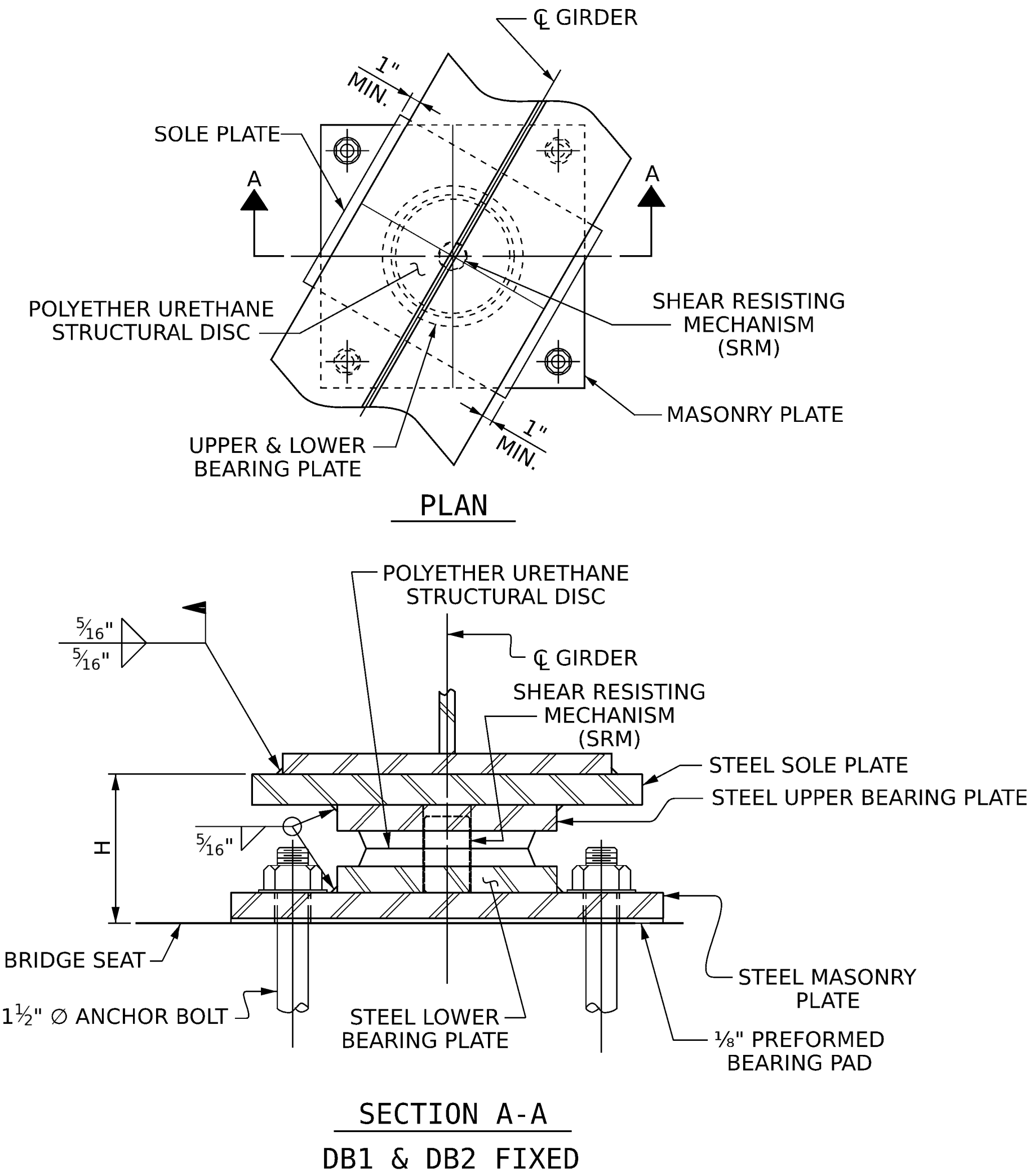
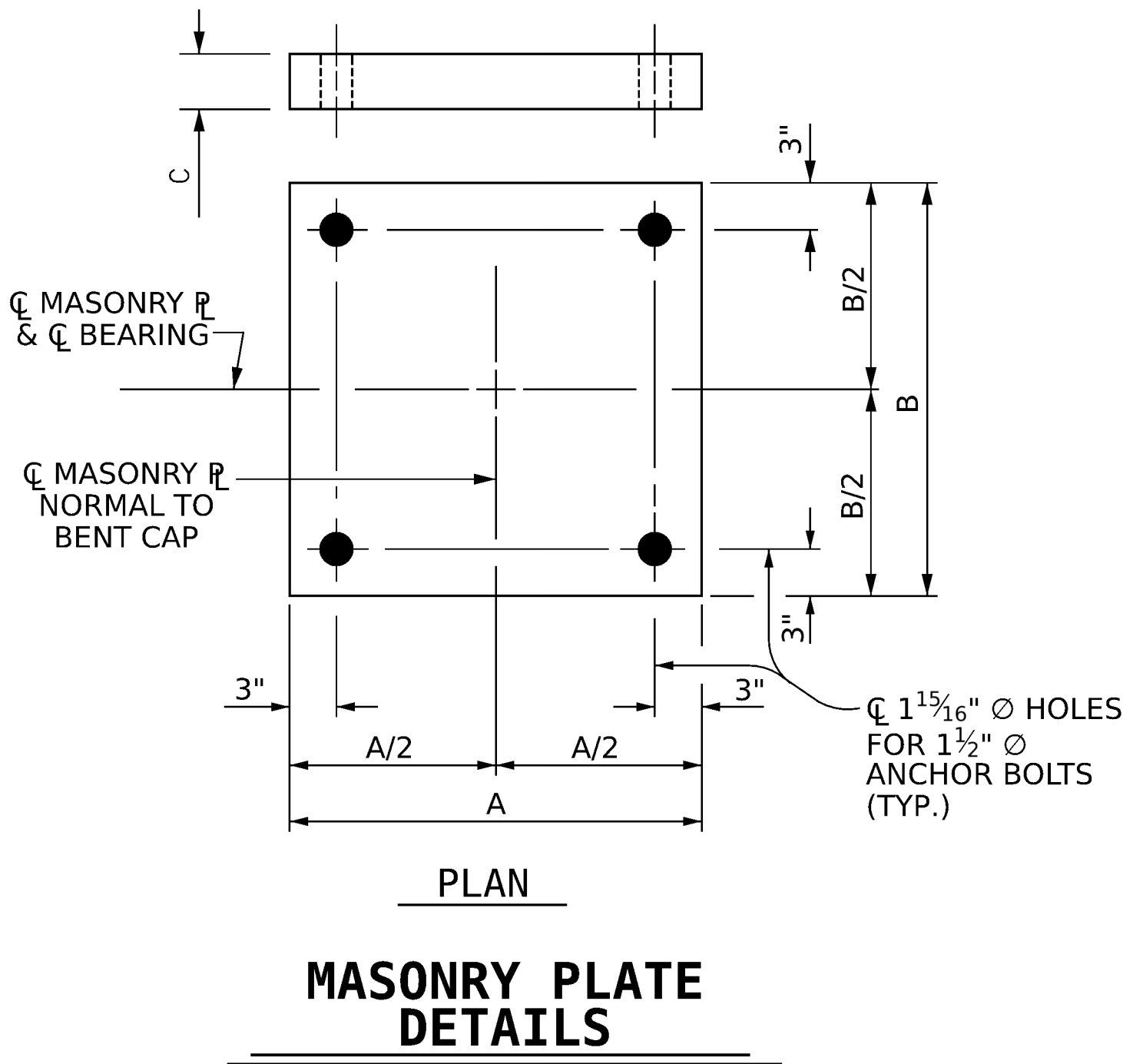
GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

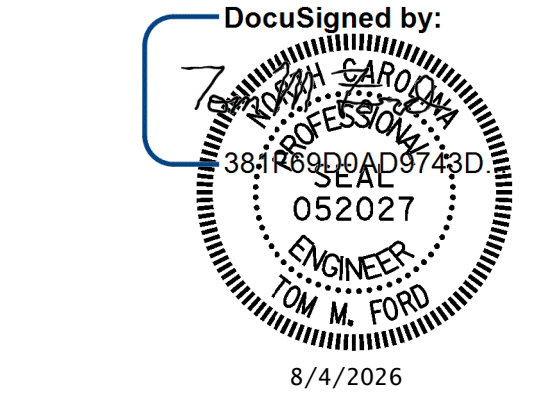
REVISIONS						SHEET NO. S2-17
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pww://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_035_I2513AP_SMU_BG1_S2-18_100905
8/4/2026 1:03:07 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tbl



				DIMENSIONS						LOADS AND MOVEMENT				
DESIGNATIONS		LOCATION	NUMBER OF BEARINGS	BEARING	MASONRY PLATE			SOLE PLATE		UNFACTORED VERTICAL LOAD (KIPS)			FACTORED HORIZONTAL LOAD (KIPS)	ONE-WAY MOVEMENT (IN.)
BEARINGS	MASONRY PL.			H (IN.)	A (IN.)	B (IN.)	C (IN.)	TOP SLOPE (%)	L (IN.)	DEAD		LIVE		
										DC	DW	LL+IM		
DB1 (FIXED)	M1	BENT 1	4	5.88	22.5	22.5	0.75	2.831	20	265	36	177	97	--
DB2 (FIXED)	M2	BENT 2	4	6.94	26.5	26.5	1.00	4.481	22	366	49	193	128	--



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH STANDARD DISC BEARING DETAILS					REVISIONS			SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:			S2-18
1			3					TOTAL SHEETS
2			4					44

STR. #2 STD. NO. DB1 (SHT. 1)



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

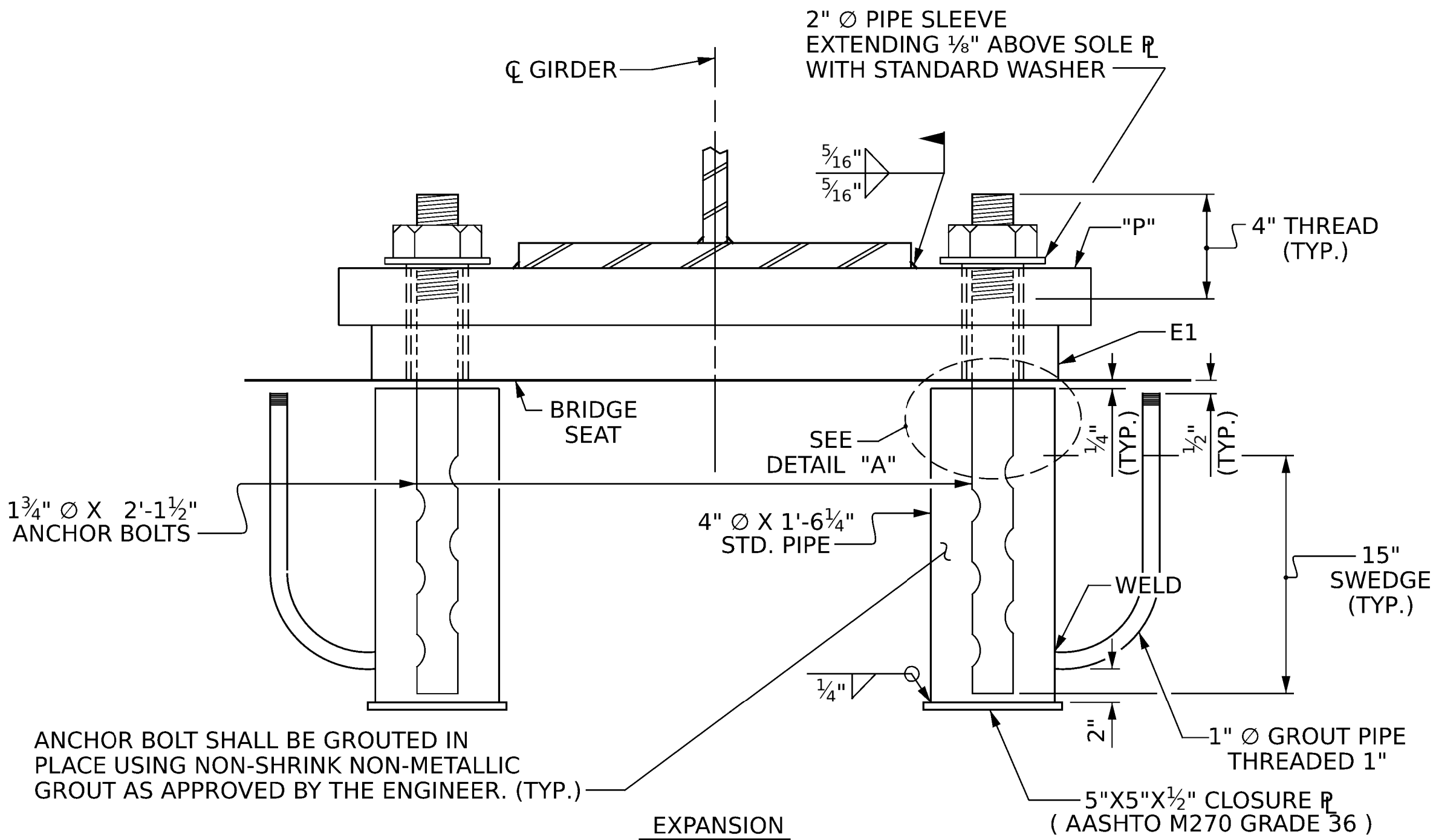
002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_037_I2513AP_SMU_BC2_S2-19_100905

Hominy-1-12-26.tbl

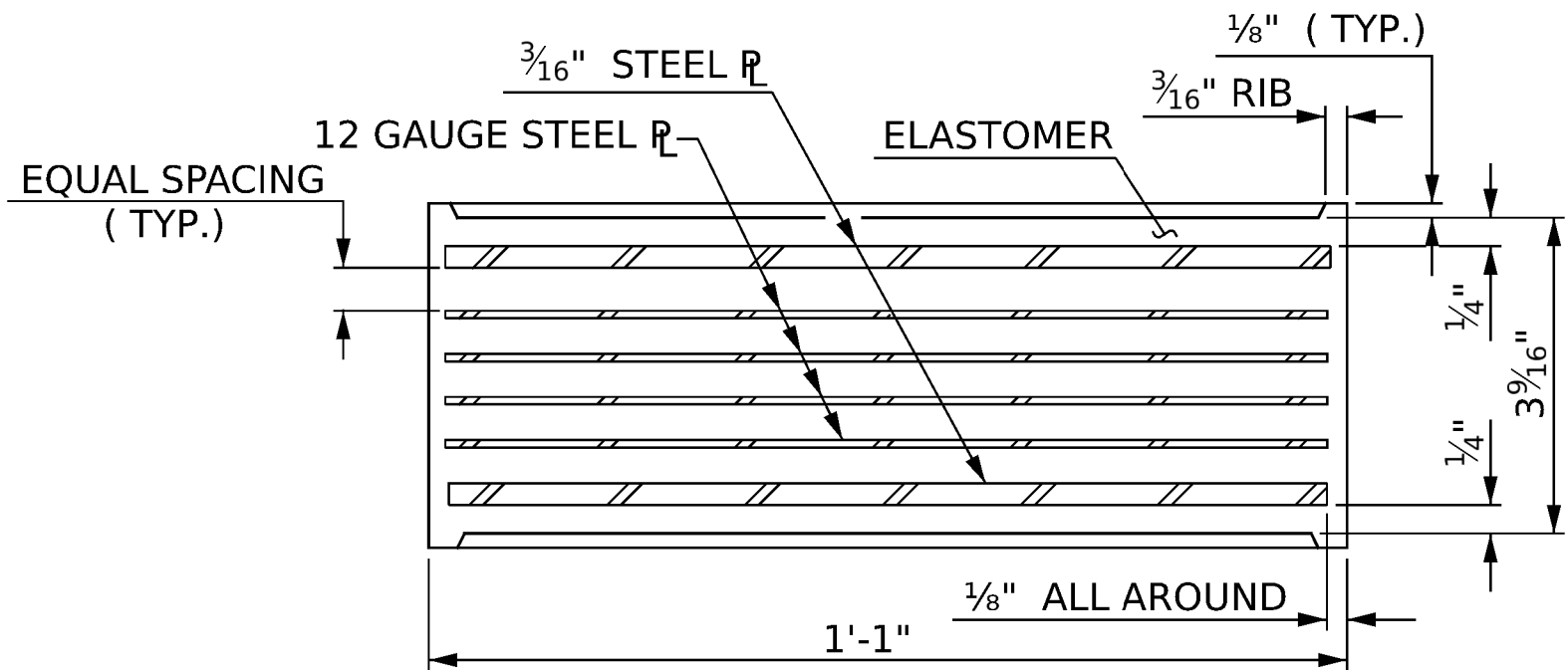
8/4/2026 1:03:22 PM pdf_color_gfclt_FS.plt

dw://gfnct-pw.bentley.com/gfnct-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_037_I2513AP_SMU_BC2_S2-19_100905

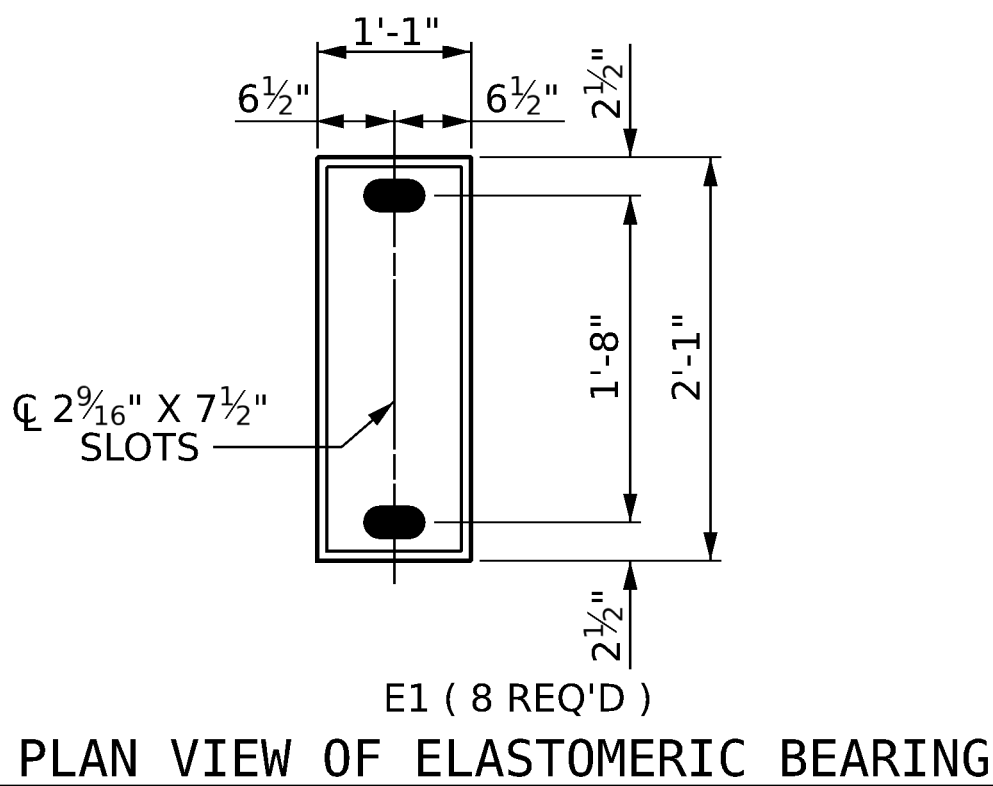
8/4/2026 1:03:22 PM pdf_color_gfclt_FS.plt



END VIEW
(RIGHT SIDE DETAILED, LEFT SIMILAR BY OPPOSITE HAND)

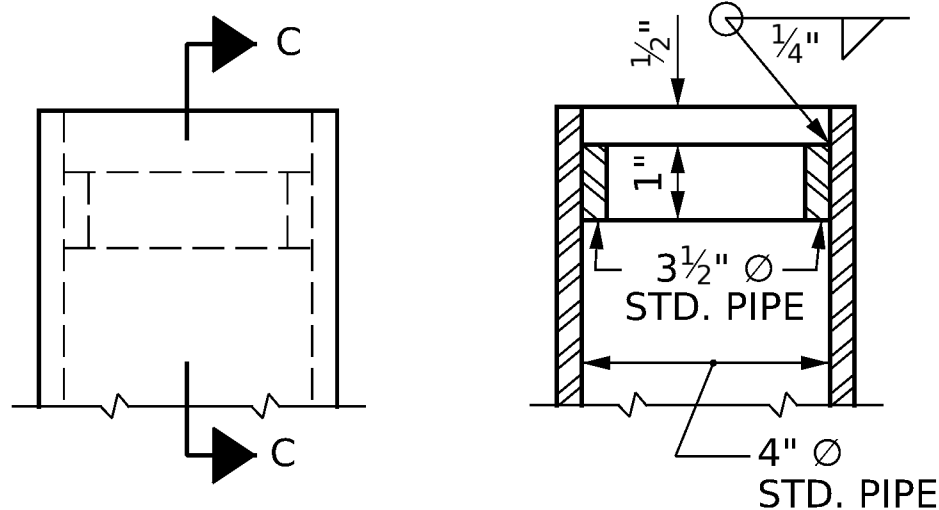


TYPICAL SECTION OF ELASTOMERIC BEARINGS



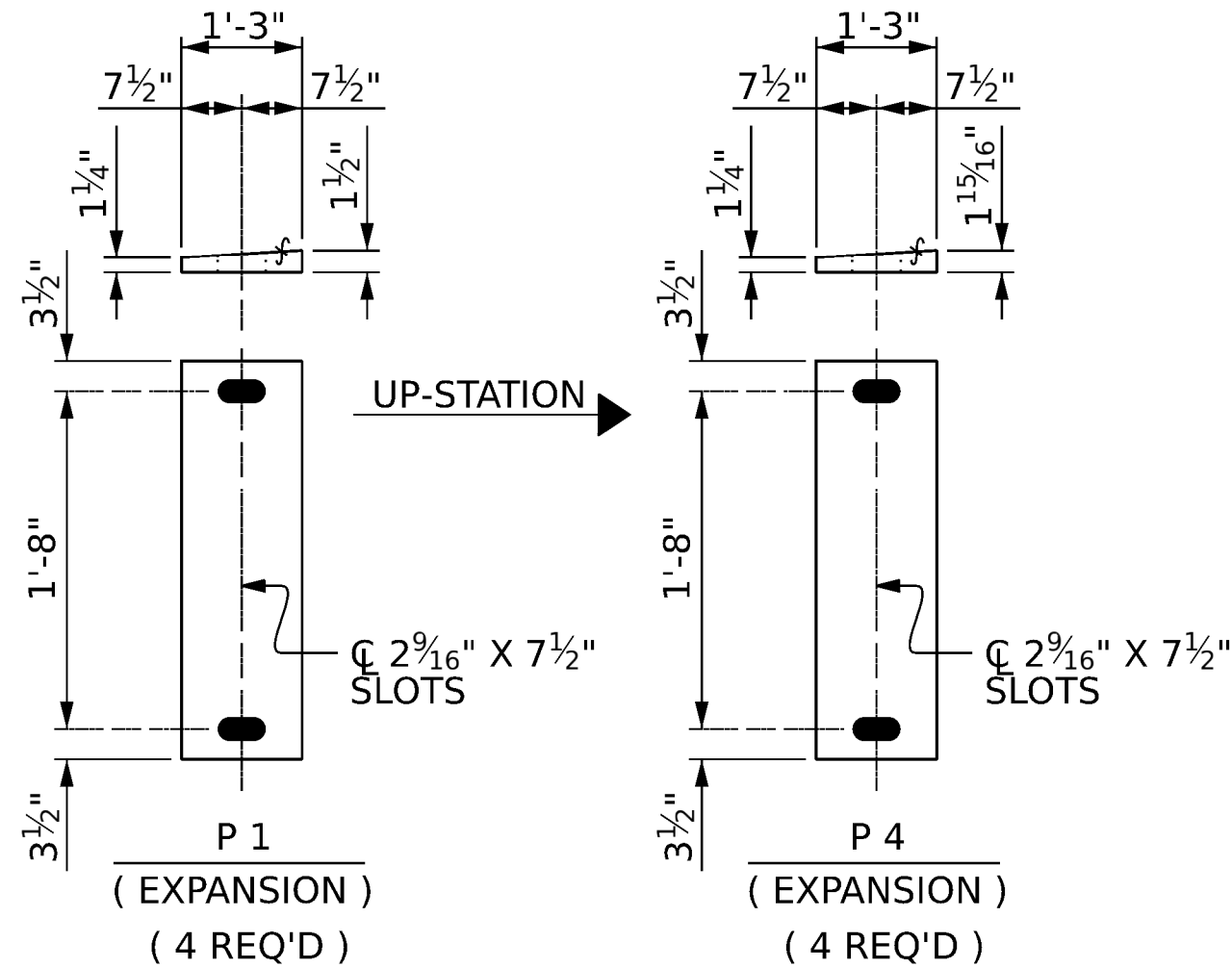
PLAN VIEW OF ELASTOMERIC BEARING

TYPE V



SECTION C-C

DETAIL "A"



SOLE PLATE DETAILS ("P")

MAXIMUM ALLOWABLE SERVICE LOADS	
D.L.+L.L. (NO IMPACT)	
TYPE V	335 k

DocuSigned by:



8/4/2026

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

ELASTOMERIC BEARING DETAILS

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-19 TOTAL SHEETS 44
2			4			

STR. #2

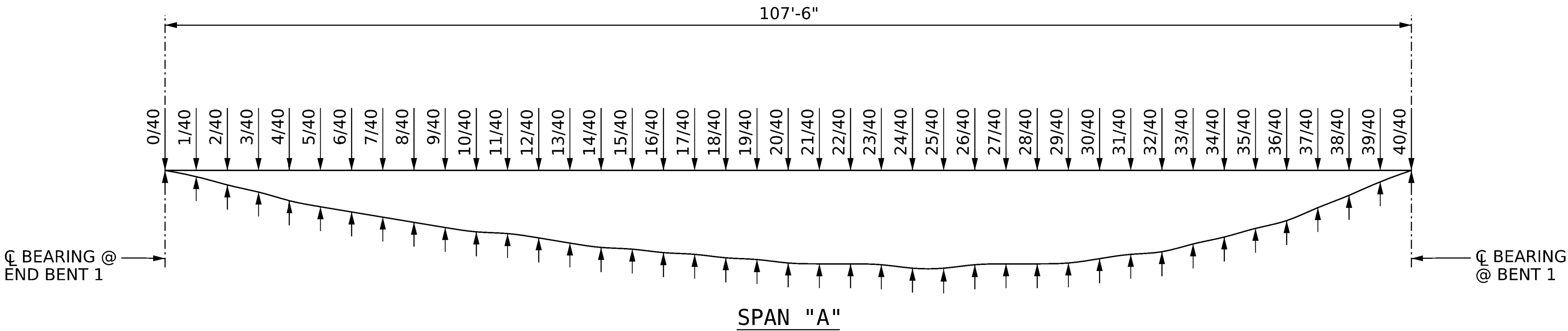
GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

pw://gfnrt-pw.bentley.com/gfnet-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_039_I2513AF-SWU_DL1-S2-20_100905
 8/4/2026 1:03:40 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tb1

DEAD LOAD DEFLECTION AND CAMBER																					
SPAN "A"																					
GIRDER 1 & GIRDER 4																					
40TH POINTS	0/40	1/40	2/40	3/40	4/40	5/40	6/40	7/40	8/40	9/40	10/40	11/40	12/40	13/40	14/40	15/40	16/40	17/40	18/40	19/40	20/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.000	0.001	0.002	0.004	0.005	0.006	0.007	0.008	0.009	0.009	0.010	0.011	0.011	0.011	0.012	0.012	0.012	0.012	0.012	0.012	0.012
DEFLECTION DUE TO WT. OF SLAB * ↓	0.000	0.004	0.008	0.013	0.017	0.020	0.024	0.027	0.031	0.033	0.035	0.037	0.040	0.040	0.041	0.042	0.043	0.042	0.041	0.040	0.040
DEFLECTION DUE TO WT. OF RAIL ↓	0.000	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
TOTAL DL DEFLECTION ↓	0.000	0.006	0.012	0.018	0.024	0.029	0.034	0.038	0.043	0.047	0.050	0.053	0.056	0.057	0.058	0.060	0.061	0.060	0.059	0.058	0.057
VERTICAL CURVE ORDINATE ↑	0.000	-0.013	-0.027	-0.040	-0.054	-0.064	-0.074	-0.085	-0.095	-0.103	-0.110	-0.118	-0.125	-0.130	-0.134	-0.139	-0.143	-0.144	-0.146	-0.147	-0.149
REQUIRED CAMBER ↑	0"	- $\frac{1}{16}$ "	- $\frac{3}{16}$ "	- $\frac{1}{4}$ "	- $\frac{3}{8}$ "	- $\frac{7}{16}$ "	- $\frac{1}{2}$ "	- $\frac{9}{16}$ "	- $\frac{5}{8}$ "	- $\frac{11}{16}$ "	- $\frac{3}{4}$ "	- $\frac{3}{4}$ "	- $\frac{13}{16}$ "	- $\frac{7}{8}$ "	- $\frac{15}{16}$ "	- $\frac{15}{16}$ "	-1	-1	-1 $\frac{1}{16}$ "	-1 $\frac{1}{16}$ "	-1 $\frac{1}{8}$ "
40TH POINTS	20/40	21/40	22/40	23/40	24/40	25/40	26/40	27/40	28/40	29/40	30/40	31/40	32/40	33/40	34/40	35/40	36/40	37/40	38/40	39/40	40/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.012	0.011	0.010	0.010	0.009	0.009	0.008	0.007	0.006	0.006	0.005	0.004	0.003	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000
DEFLECTION DUE TO WT. OF SLAB * ↓	0.040	0.038	0.036	0.034	0.032	0.029	0.026	0.024	0.021	0.018	0.015	0.013	0.011	0.008	0.006	0.004	0.003	0.001	0.001	0.000	0.000
DEFLECTION DUE TO WT. OF RAIL ↓	0.006	0.005	0.005	0.005	0.004	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000
TOTAL DL DEFLECTION ↓	0.057	0.054	0.051	0.048	0.046	0.042	0.038	0.034	0.030	0.026	0.022	0.018	0.016	0.011	0.009	0.006	0.004	0.002	0.001	0.001	0.000
VERTICAL CURVE ORDINATE ↑	-0.149	-0.147	-0.146	-0.144	-0.143	-0.139	-0.134	-0.130	-0.125	-0.118	-0.110	-0.103	-0.095	-0.085	-0.074	-0.064	-0.054	-0.040	-0.027	-0.013	0.000
REQUIRED CAMBER ↑	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{3}{16}$ "	-1 $\frac{3}{16}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{16}$ "	-1	- $\frac{5}{16}$ "	- $\frac{7}{8}$ "	-1 $\frac{3}{16}$ "	-1 $\frac{1}{16}$ "	- $\frac{5}{8}$ "	- $\frac{7}{16}$ "	- $\frac{5}{16}$ "	- $\frac{1}{8}$ "	0"

DEAD LOAD DEFLECTION AND CAMBER																					
SPAN "A"																					
GIRDER 2 & GIRDER 3																					
40TH POINTS	0/40	1/40	2/40	3/40	4/40	5/40	6/40	7/40	8/40	9/40	10/40	11/40	12/40	13/40	14/40	15/40	16/40	17/40	18/40	19/40	20/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.000	0.001	0.002	0.004	0.005	0.006	0.007	0.008	0.009	0.009	0.010	0.011	0.011	0.012	0.012	0.012	0.012	0.012	0.012	0.012	0.012
DEFLECTION DUE TO WT. OF SLAB * ↓	0.000	0.004	0.009	0.013	0.017	0.021	0.024	0.028	0.031	0.034	0.036	0.038	0.040	0.041	0.042	0.043	0.044	0.043	0.042	0.041	0.041
DEFLECTION DUE TO WT. OF RAIL ↓	0.000	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
TOTAL DL DEFLECTION ↓	0.000	0.006	0.012	0.018	0.024	0.029	0.034	0.039	0.044	0.047	0.051	0.054	0.057	0.058	0.059	0.060	0.062	0.061	0.060	0.059	0.058
VERTICAL CURVE ORDINATE ↑	0.000	-0.013	-0.027	-0.040	-0.054	-0.064	-0.074	-0.085	-0.095	-0.103	-0.110	-0.118	-0.125	-0.130	-0.134	-0.139	-0.143	-0.144	-0.146	-0.147	-0.149
REQUIRED CAMBER ↑	0"	- $\frac{1}{16}$ "	- $\frac{3}{16}$ "	- $\frac{1}{4}$ "	- $\frac{3}{8}$ "	- $\frac{7}{16}$ "	- $\frac{1}{2}$ "	- $\frac{9}{16}$ "	- $\frac{5}{8}$ "	- $\frac{11}{16}$ "	- $\frac{11}{16}$ "	- $\frac{3}{4}$ "	- $\frac{13}{16}$ "	- $\frac{7}{8}$ "	- $\frac{7}{8}$ "	- $\frac{15}{16}$ "	-1	-1	-1 $\frac{1}{16}$ "	-1 $\frac{1}{16}$ "	-1 $\frac{1}{8}$ "
40TH POINTS	20/40	21/40	22/40	23/40	24/40	25/40	26/40	27/40	28/40	29/40	30/40	31/40	32/40	33/40	34/40	35/40	36/40	37/40	38/40	39/40	40/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.012	0.011	0.011	0.010	0.010	0.009	0.008	0.007	0.006	0.006	0.005	0.004	0.003	0.003	0.002	0.001	0.001	0.001	0.000	0.000	0.000
DEFLECTION DUE TO WT. OF SLAB * ↓	0.041	0.039	0.037	0.035	0.033	0.030	0.027	0.024	0.022	0.019	0.016	0.013	0.010	0.008	0.006	0.004	0.002	0.001	0.001	0.000	0.000
DEFLECTION DUE TO WT. OF RAIL ↓	0.006	0.005	0.005	0.005	0.004	0.004	0.004	0.003	0.003	0.003	0.002	0.002	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000
TOTAL DL DEFLECTION ↓	0.058	0.055	0.052	0.049	0.047	0.043	0.039	0.035	0.031	0.027	0.023	0.019	0.015	0.012	0.009	0.006	0.003	0.002	0.001	0.001	0.000
VERTICAL CURVE ORDINATE ↑	-0.149	-0.147	-0.146	-0.144	-0.143	-0.139	-0.134	-0.130	-0.125	-0.118	-0.110	-0.103	-0.095	-0.085	-0.074	-0.064	-0.054	-0.040	-0.027	-0.013	0.000
REQUIRED CAMBER ↑	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{3}{16}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{8}$ "	-1 $\frac{1}{16}$ "	-1 $\frac{1}{16}$ "	-1	-1 $\frac{5}{16}$ "	- $\frac{7}{8}$ "	-1 $\frac{13}{16}$ "	-1 $\frac{11}{16}$ "	- $\frac{5}{8}$ "	- $\frac{7}{16}$ "	- $\frac{5}{16}$ "	- $\frac{1}{8}$ "	0"



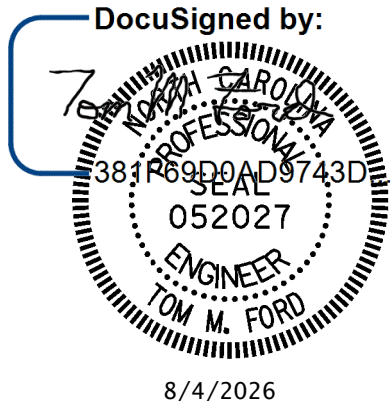
SCHEMATIC OF CAMBER ORDINATES
 SLOPE FOR THE ZERO CAMBER BASE LINE VARIES.

DRAWN BY : J. HARRIS	DATE : 4/2024
CHECKED BY : J. FARNHAM	DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD	DATE : 6/2024



GFT Infrastructure, Inc.
 One Glenwood Avenue, Suite 900
 Raleigh, NC 27603
 919-420-7660
 NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
 STATION: **19+17.50 -Y2RPB-**

SHEET 1 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO.	
GIRDER DEFLECTIONS AND CAMBER SCHEDULES SPAN "A"						S2-20	
REVISIONS						TOTAL SHEETS	
NO.	BY:	DATE:	NO.	BY:	DATE:	44	
1			3				
2			4				

NOTES:

DEFLECTIONS AND ORDINATE VALUES ARE IN FEET. REQUIRED CAMBER VALUES ARE IN FRACTIONAL INCHES.

DEFLECTION POSITIVE SIGN CONVENTION IS DOWN.

VERTICAL CURVE ORDINATE POSITIVE SIGN CONVENTION IS UP.

REQUIRED CAMBER POSITIVE SIGN CONVENTION IS UP.

* INCLUDES SLAB, BUILD-UP, AND STAY-IN-PLACE METAL FORMS.

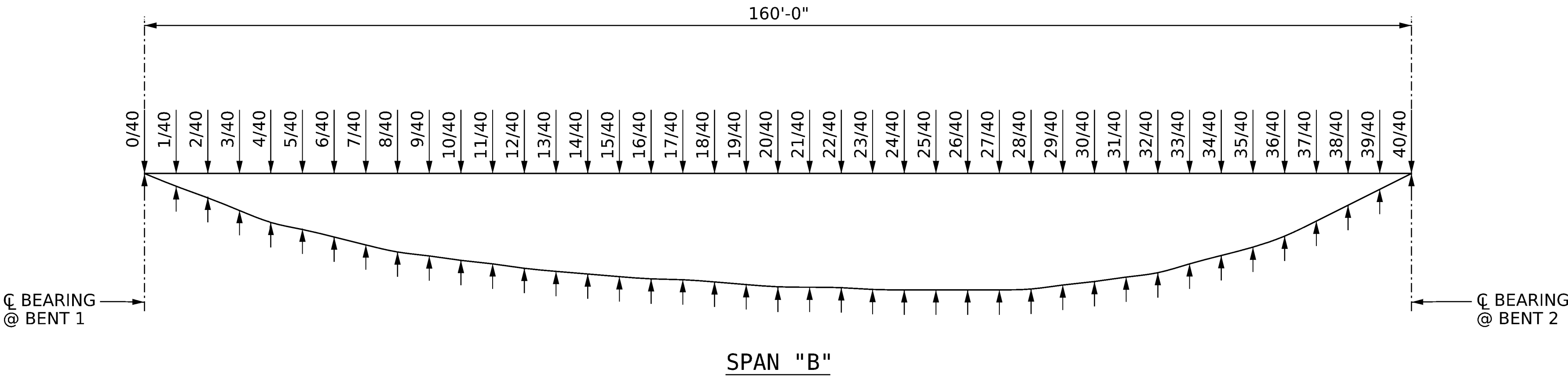
DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

dw://gfnrt-pw.bentley.com/gfnet-pw-01/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_041_I2513AF-SMU_DL2_S2-21_100905

8/4/2026 1:03:58 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tb1

DEAD LOAD DEFLECTION AND CAMBER																					
SPAN "B"																					
GIRDER 1 & GIRDER 4																					
40TH POINTS	0/40	1/40	2/40	3/40	4/40	5/40	6/40	7/40	8/40	9/40	10/40	11/40	12/40	13/40	14/40	15/40	16/40	17/40	18/40	19/40	20/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.000	0.001	0.002	0.003	0.004	0.005	0.007	0.008	0.010	0.011	0.013	0.014	0.016	0.016	0.017	0.018	0.019	0.018	0.018	0.018	0.018
DEFLECTION DUE TO WT. OF SLAB * ↓	0.000	0.004	0.008	0.012	0.018	0.022	0.026	0.033	0.042	0.047	0.054	0.060	0.066	0.069	0.073	0.076	0.080	0.080	0.080	0.079	0.079
DEFLECTION DUE TO WT. OF RAIL ↓	0.000	0.001	0.001	0.002	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.010	0.011	0.011	0.012	0.012	0.012	0.012	0.012
TOTAL DL DEFLECTION ↓	0.000	0.005	0.011	0.016	0.024	0.030	0.037	0.046	0.058	0.066	0.074	0.083	0.091	0.096	0.101	0.105	0.110	0.110	0.109	0.109	0.108
VERTICAL CURVE ORDINATE ↑	0.000	-0.030	-0.059	-0.089	-0.119	-0.142	-0.165	-0.188	-0.211	-0.228	-0.244	-0.261	-0.277	-0.287	-0.297	-0.307	-0.317	-0.320	-0.323	-0.327	-0.330
REQUIRED CAMBER ↑	0"	- ⁵ / ₁₆ "	- ⁹ / ₁₆ "	- ⁷ / ₈ "	-1 ¹ / ₈ "	-1 ⁵ / ₁₆ "	-1 ⁹ / ₁₆ "	-1 ¹¹ / ₁₆ "	-1 ¹³ / ₁₆ "	-1 ¹⁵ / ₁₆ "	-2 ¹ / ₁₆ "	-2 ¹ / ₈ "	-2 ¹ / ₄ "	-2 ⁵ / ₁₆ "	-2 ³ / ₈ "	-2 ⁷ / ₁₆ "	-2 ¹ / ₂ "	-2 ¹ / ₂ "	-2 ⁹ / ₁₆ "	-2 ⁵ / ₈ "	-2 ¹¹ / ₁₆ "
40TH POINTS	20/40	21/40	22/40	23/40	24/40	25/40	26/40	27/40	28/40	29/40	30/40	31/40	32/40	33/40	34/40	35/40	36/40	37/40	38/40	39/40	40/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.018	0.017	0.015	0.014	0.013	0.012	0.010	0.008	0.007	0.005	0.004	0.002	0.000	0.000	-0.001	-0.002	-0.003	-0.002	-0.001	-0.001	0.000
DEFLECTION DUE TO WT. OF SLAB * ↓	0.079	0.075	0.071	0.067	0.064	0.057	0.051	0.045	0.040	0.032	0.025	0.019	0.016	0.008	0.004	0.000	-0.001	-0.003	-0.002	-0.001	0.000
DEFLECTION DUE TO WT. OF RAIL ↓	0.012	0.011	0.011	0.010	0.009	0.009	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.001	0.000	-0.001	0.000	0.000	0.000	0.000
TOTAL DL DEFLECTION ↓	0.108	0.103	0.097	0.092	0.086	0.077	0.068	0.060	0.052	0.042	0.033	0.024	0.018	0.009	0.004	-0.002	-0.005	-0.006	-0.004	-0.002	0.000
VERTICAL CURVE ORDINATE ↑	-0.330	-0.327	-0.323	-0.320	-0.317	-0.307	-0.297	-0.287	-0.277	-0.261	-0.244	-0.228	-0.211	-0.188	-0.165	-0.142	-0.119	-0.089	-0.059	-0.030	0.000
REQUIRED CAMBER ↑	-2 ¹¹ / ₁₆ "	-2 ¹¹ / ₁₆ "	-2 ¹¹ / ₁₆ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ¹ / ₁₆ "	-2 ⁵ / ₈ "	-2 ⁹ / ₁₆ "	-2 ⁷ / ₁₆ "	-2 ⁵ / ₁₆ "	-2 ¹ / ₈ "	-1 ¹⁵ / ₁₆ "	-1 ³ / ₄ "	-1 ¹ / ₂ "	-1 ¹ / ₈ "	- ³ / ₄ "	- ³ / ₈ "	0"

DEAD LOAD DEFLECTION AND CAMBER																					
SPAN "B"																					
GIRDER 2 & GIRDER 3																					
40TH POINTS	0/40	1/40	2/40	3/40	4/40	5/40	6/40	7/40	8/40	9/40	10/40	11/40	12/40	13/40	14/40	15/40	16/40	17/40	18/40	19/40	20/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.000	0.001	0.002	0.003	0.004	0.005	0.007	0.008	0.010	0.011	0.013	0.014	0.016	0.016	0.017	0.018	0.019	0.018	0.018	0.018	0.018
DEFLECTION DUE TO WT. OF SLAB * ↓	0.000	0.004	0.008	0.012	0.016	0.022	0.029	0.036	0.042	0.048	0.055	0.061	0.067	0.070	0.074	0.078	0.081	0.081	0.081	0.081	0.080
DEFLECTION DUE TO WT. OF RAIL ↓	0.000	0.001	0.001	0.002	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.010	0.011	0.011	0.012	0.012	0.012	0.012	0.012
TOTAL DL DEFLECTION ↓	0.000	0.005	0.011	0.016	0.022	0.031	0.040	0.049	0.058	0.066	0.075	0.084	0.092	0.097	0.102	0.106	0.111	0.111	0.110	0.110	0.110
VERTICAL CURVE ORDINATE ↑	0.000	-0.030	-0.059	-0.089	-0.119	-0.142	-0.165	-0.188	-0.211	-0.228	-0.244	-0.261	-0.277	-0.287	-0.297	-0.307	-0.317	-0.320	-0.323	-0.327	-0.330
REQUIRED CAMBER ↑	0"	- ⁵ / ₁₆ "	- ⁹ / ₁₆ "	- ⁷ / ₈ "	-1 ³ / ₁₆ "	-1 ⁵ / ₁₆ "	-1 ¹ / ₂ "	-1 ¹³ / ₁₆ "	-1 ¹³ / ₁₆ "	-1 ¹⁵ / ₁₆ "	-2	-2 ¹ / ₈ "	-2 ¹ / ₄ "	-2 ⁵ / ₁₆ "	-2 ⁵ / ₁₆ "	-2 ³ / ₈ "	-2 ⁷ / ₁₆ "	-2 ¹ / ₂ "	-2 ⁹ / ₁₆ "	-2 ⁵ / ₈ "	-2 ⁵ / ₈ "
40TH POINTS	20/40	21/40	22/40	23/40	24/40	25/40	26/40	27/40	28/40	29/40	30/40	31/40	32/40	33/40	34/40	35/40	36/40	37/40	38/40	39/40	40/40
DEFLECTION DUE TO WT. OF STEEL ↓	0.018	0.017	0.016	0.015	0.013	0.012	0.010	0.008	0.007	0.005	0.004	0.002	0.001	0.000	-0.001	-0.002	-0.003	-0.002	-0.001	-0.001	0.000
DEFLECTION DUE TO WT. OF SLAB * ↓	0.080	0.076	0.073	0.069	0.065	0.058	0.052	0.046	0.039	0.033	0.026	0.020	0.013	0.009	0.005	0.000	-0.004	-0.003	-0.002	-0.001	0.000
DEFLECTION DUE TO WT. OF RAIL ↓	0.012	0.011	0.010	0.010	0.009	0.008	0.008	0.007	0.006	0.005	0.004	0.003	0.002	0.001	0.001	0.000	-0.001	0.000	0.000	0.000	0.000
TOTAL DL DEFLECTION ↓	0.110	0.104	0.099	0.093	0.087	0.078	0.070	0.061	0.052	0.043	0.034	0.024	0.015	0.010	0.004	-0.002	-0.007	-0.006	-0.004	-0.002	0.000
VERTICAL CURVE ORDINATE ↑	-0.330	-0.327	-0.323	-0.320	-0.317	-0.307	-0.297	-0.287	-0.277	-0.261	-0.244	-0.228	-0.211	-0.188	-0.165	-0.142	-0.119	-0.089	-0.059	-0.030	0.000
REQUIRED CAMBER ↑	-2 ⁵ / ₈ "	-2 ¹¹ / ₁₆ "	-2 ¹¹ / ₁₆ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ³ / ₄ "	-2 ¹¹ / ₁₆ "	-2 ¹¹ / ₁₆ "	-2 ⁵ / ₈ "	-2 ¹ / ₂ "	-2 ⁷ / ₁₆ "	-2 ³ / ₈ "	-2 ¹ / ₈ "	-1 ¹⁵ / ₁₆ "	-1 ³ / ₄ "	-1 ¹ / ₂ "	-1 ¹ / ₈ "	- ³ / ₄ "	- ³ / ₈ "	0"

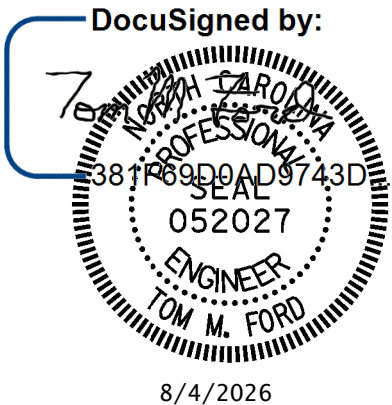


DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**GIRDER DEFLECTIONS
AND CAMBER SCHEDULES
SPAN "B"**

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		S2-21
2			4		TOTAL SHEETS 44

STR. #2

NOTES:

DEFLECTIONS AND ORDINATE VALUES ARE IN FEET. REQUIRED CAMBER VALUES ARE IN FRACTIONAL INCHES.

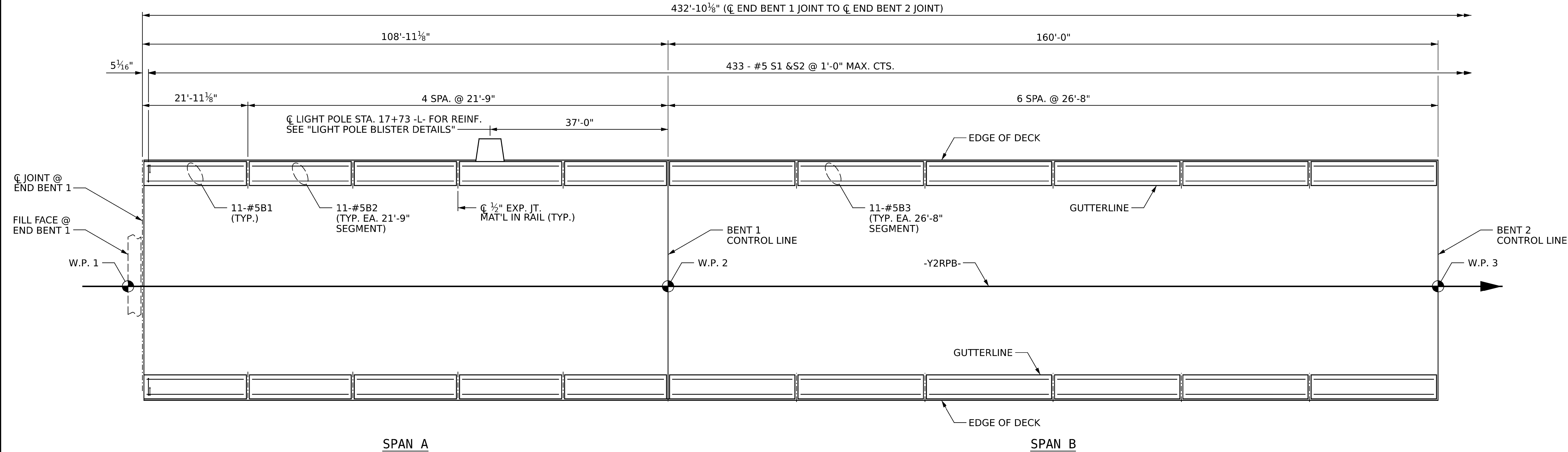
DEFLECTION POSITIVE SIGN CONVENTION IS DOWN.

VERTICAL CURVE ORDINATE POSITIVE SIGN CONVENTION IS UP.

REQUIRED CAMBER POSITIVE SIGN CONVENTION IS UP.

* INCLUDES SLAB, BUILD-UP, AND STAY-IN-PLACE METAL FORMS.

dws://gfnnet-pw.bentley.com/gfnnet-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402.045_I2513AC-SMU_BR1_S2-23.100905
8/4/2026 1:04:33 PM pdf_color_gfolt_FS.plt Hominy_1-12-26.tbl

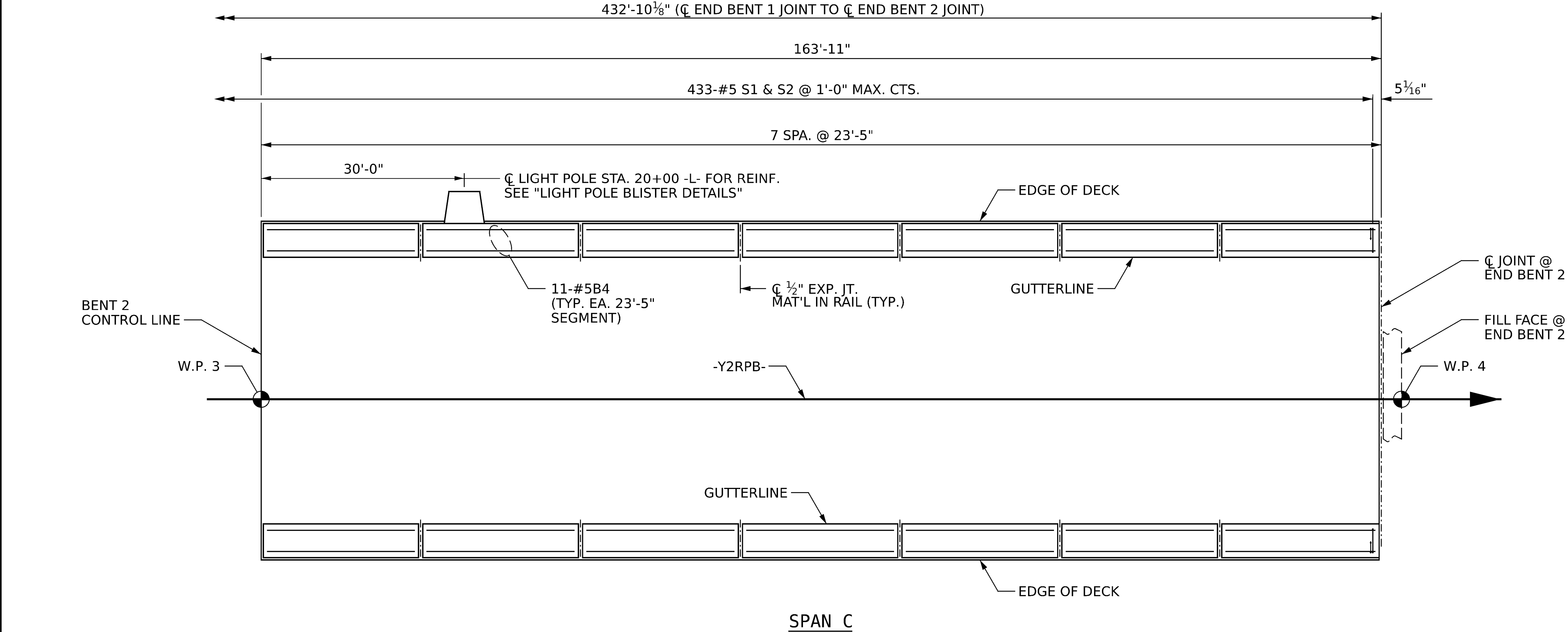


NOTES:

#5 S1 & S2 BARS MAY BE SHIFTED AS NECESSARY TO CLEAR EXPANSION JOINTS IN RAILS.

FOR ADDITIONAL NOTES, SEE SHEET 2 OF 2.

FOR REINFORCING STEEL & QUANTITIES OF BARRIER RAIL ON APPROACH SLAB, SEE "APPROACH SLAB DETAILS" SHEET.



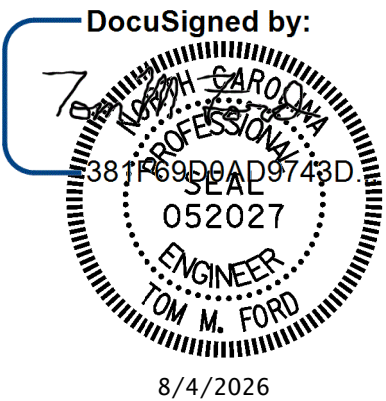
DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

PLAN OF CONCRETE BARRIER RAIL
DIMENSIONS TYPICAL LEFT AND RIGHT BARRIER RAILS



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



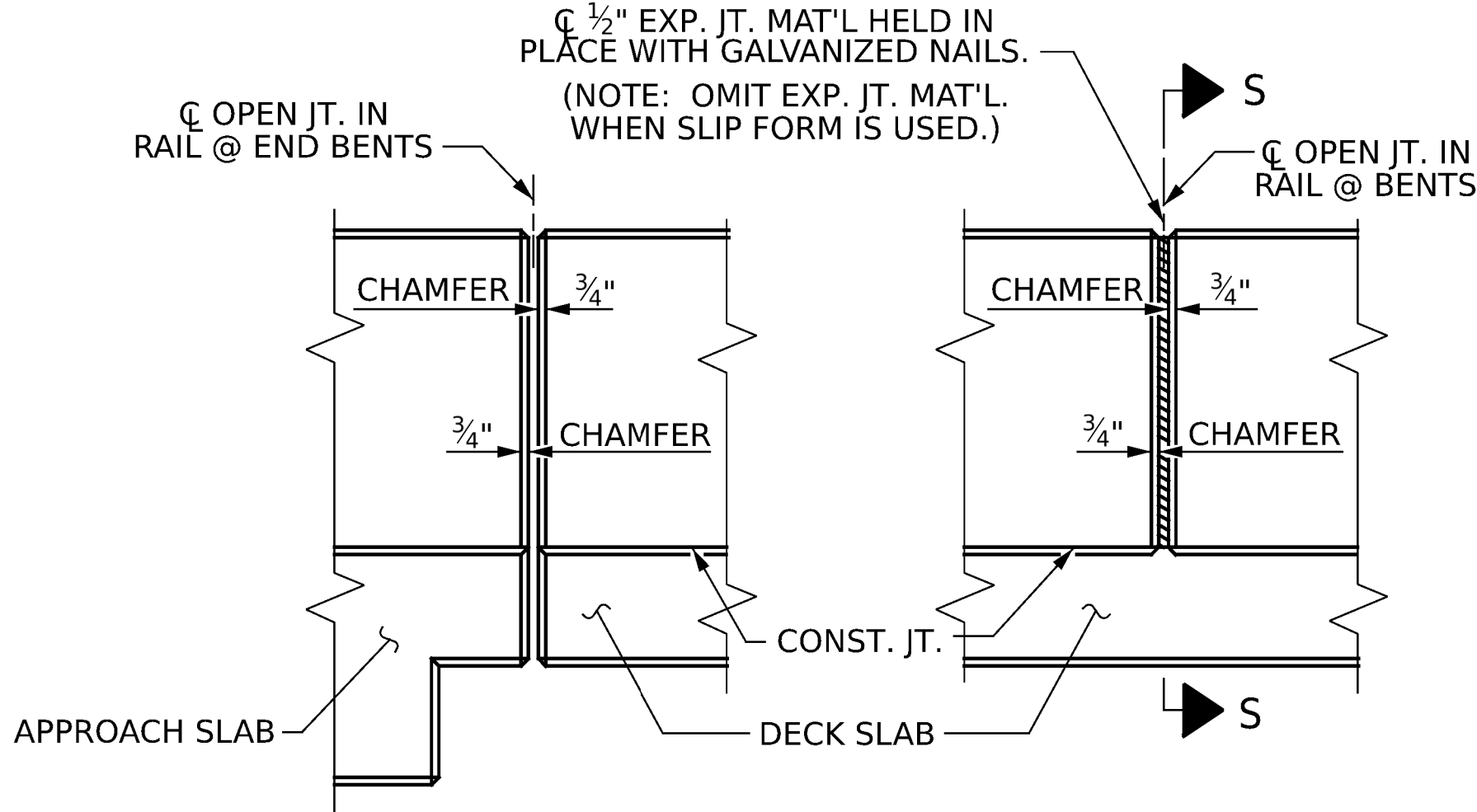
PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**
SHEET 1 OF 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-23
1			3			TOTAL SHEETS
2			4			44

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com/gfnet-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_047_I2513AP_SWU_BR2_S2-24_100905

8/4/2026 1:04:47 PM pdf_color_gfclt_FS.plt Hominy-1-12-26.tbl

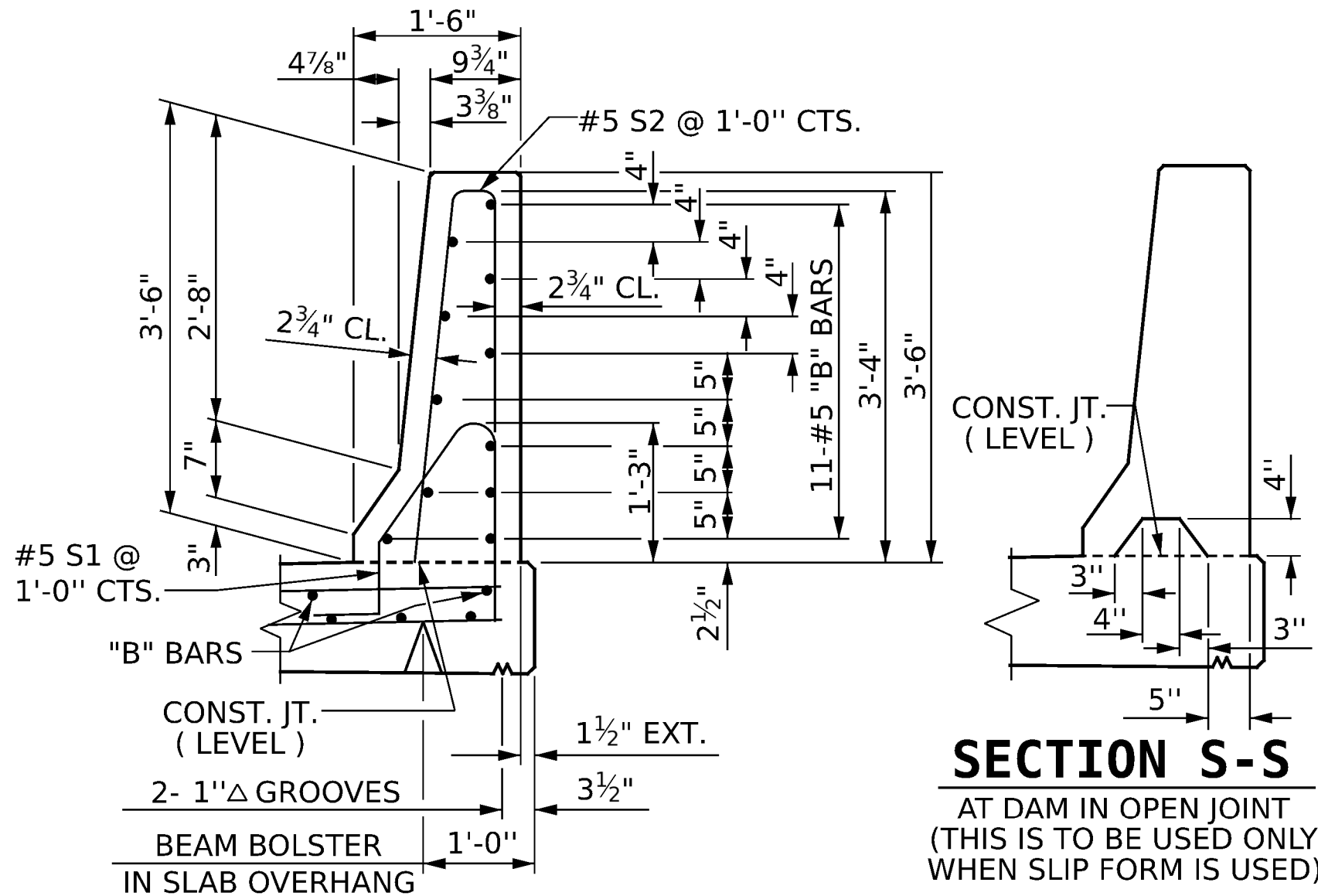


END BENTS

BENTS

ELEVATION AT EXPANSION JOINTS

BARRIER RAIL DETAILS



SECTION THRU RAIL

NOTES

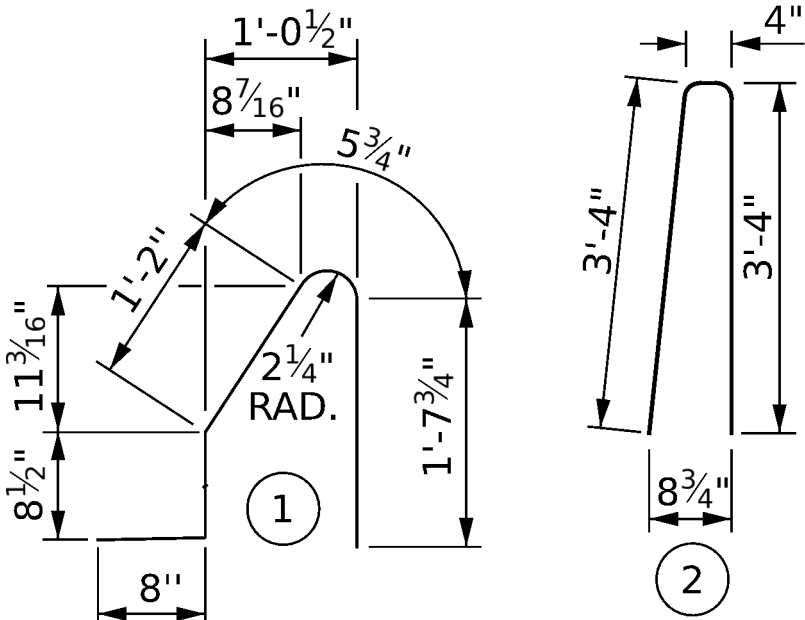
THE BARRIER RAIL IN EACH SPAN SHALL NOT BE CAST UNTIL ALL SLAB CONCRETE IN THAT SPAN HAS BEEN CAST AND HAS REACHED A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.

ALL REINFORCING STEEL IN BARRIER RAILS SHALL BE EPOXY COATED.

THE #5 S3, S4, S5 AND S6 BARS SHALL BE INSTALLED, USING AN ADHESIVE ANCHORING SYSTEM, AFTER SAWING THE JOINT. THE YIELD LOAD FOR THE #5 S3, S4, S5 AND S6 BARS IS 18.6 KIPS. FIELD TESTING FOR THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.

GROOVED CONTRACTION JOINTS, 1/2" IN DEPTH, SHALL BE TOOLED IN ALL EXPOSED FACES OF THE BARRIER RAIL AND IN ACCORDANCE WITH ARTICLE 825-10(B) OF THE STANDARD SPECIFICATIONS. THE CONTRACTION JOINT SHALL BE LOCATED AT EACH THIRD POINT BETWEEN BARRIER RAIL EXPANSION JOINTS. ONLY ONE CONTRACTION JOINT IS REQUIRED AT MIDPOINT OF BARRIER RAIL SEGMENTS LESS THAN 20 FEET IN LENGTH AND NO CONTRACTION JOINTS ARE REQUIRED FOR THOSE SEGMENTS LESS THAN 10 FEET IN LENGTH.

BAR TYPES



ALL BAR DIMENSIONS ARE OUT TO OUT

BILL OF MATERIAL

FOR CONCRETE BARRIER RAIL ONLY

BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT
* B1	22	#5	STR.	21'-6"	494
* B2	88	#5	STR.	21'-4"	1,959
* B3	132	#5	STR.	26'-3"	3,614
* B4	154	#5	STR.	23'-0"	3,695
* S1	866	#5	1	4'-8"	4,216
* S2	866	#5	2	7'-0"	6,323

* EPOXY COATED REINFORCING STEEL ▲ 20,301 LBS.

CLASS AA CONCRETE ▲ 117.7 CU. YDS.

CONCRETE BARRIER RAIL ▲ 865.40 LIN. FT.

▲ SEE "APPROACH SLAB BARRIER" FOR BARRIER RAIL QUANTITIES ON APPROACH SLABS. SEE "LIGHT POLE BLISTER DETAILS" FOR LIGHT POLE BLISTER QUANTITIES.

PROJECT NO. **I-2513AC**

BUNCOMBE COUNTY

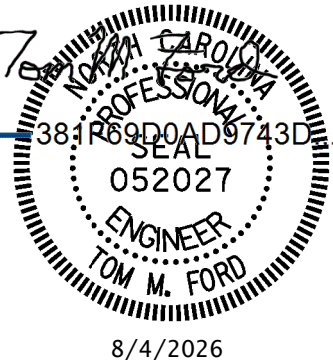
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

CONCRETE
BARRIER RAIL

DocuSigned by:



8/4/2026

DRAWN BY : J. HARRIS DATE : 4/2024

CHECKED BY : J. FARNHAM DATE : 6/2024

DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

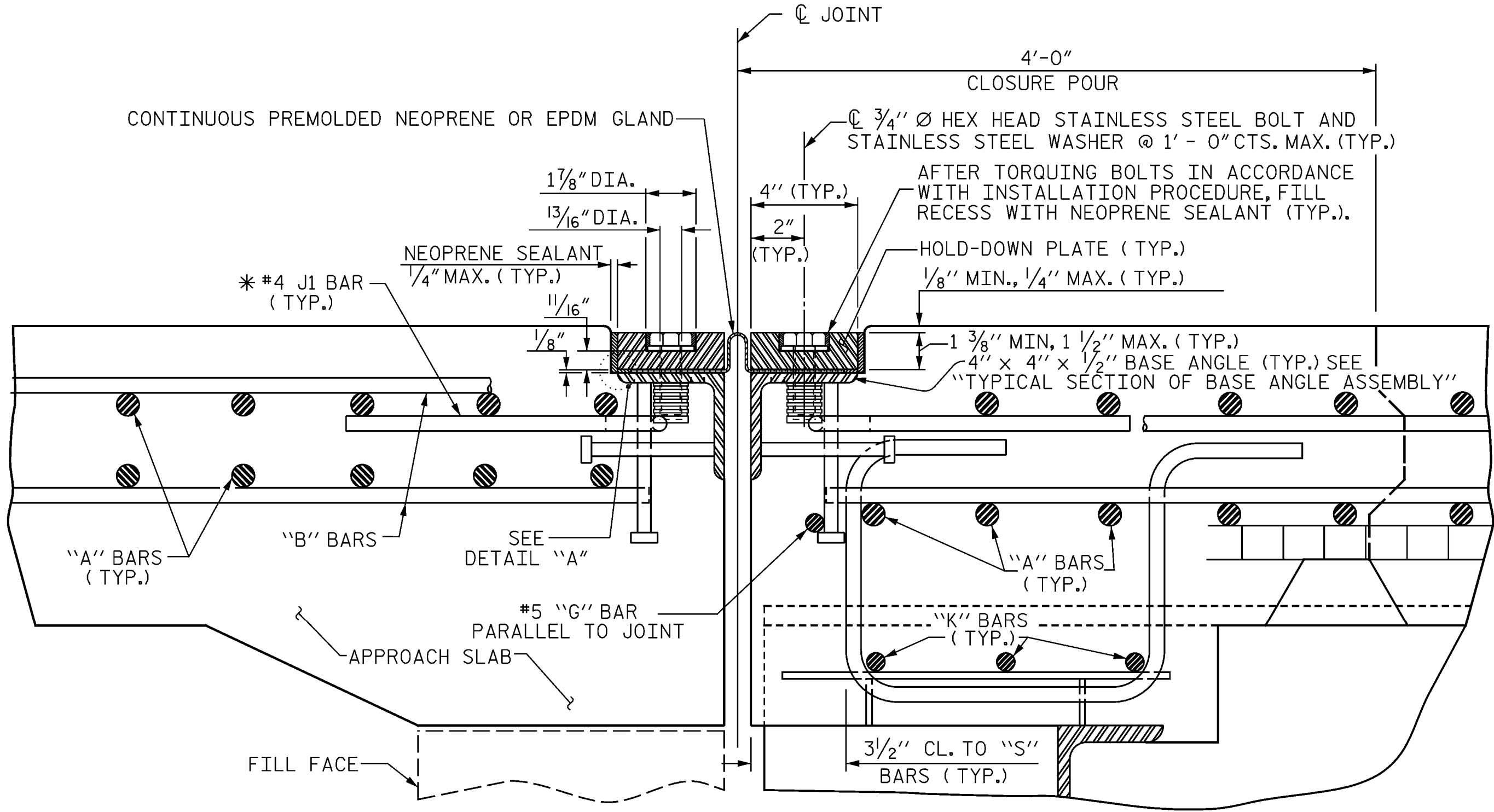
GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		S2-24
2			4		TOTAL SHEETS 44

STR. #2



EXPANSION JOINT DETAILS

SECTION NORMAL TO JOINT -- STEEL SUPERSTRUCTURE

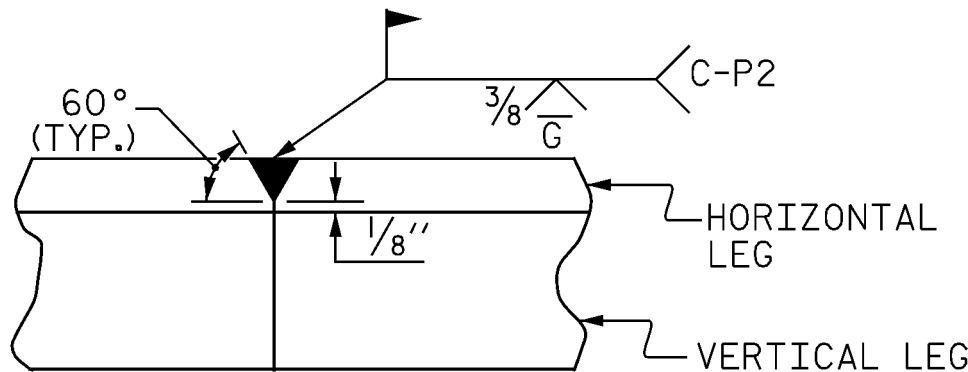
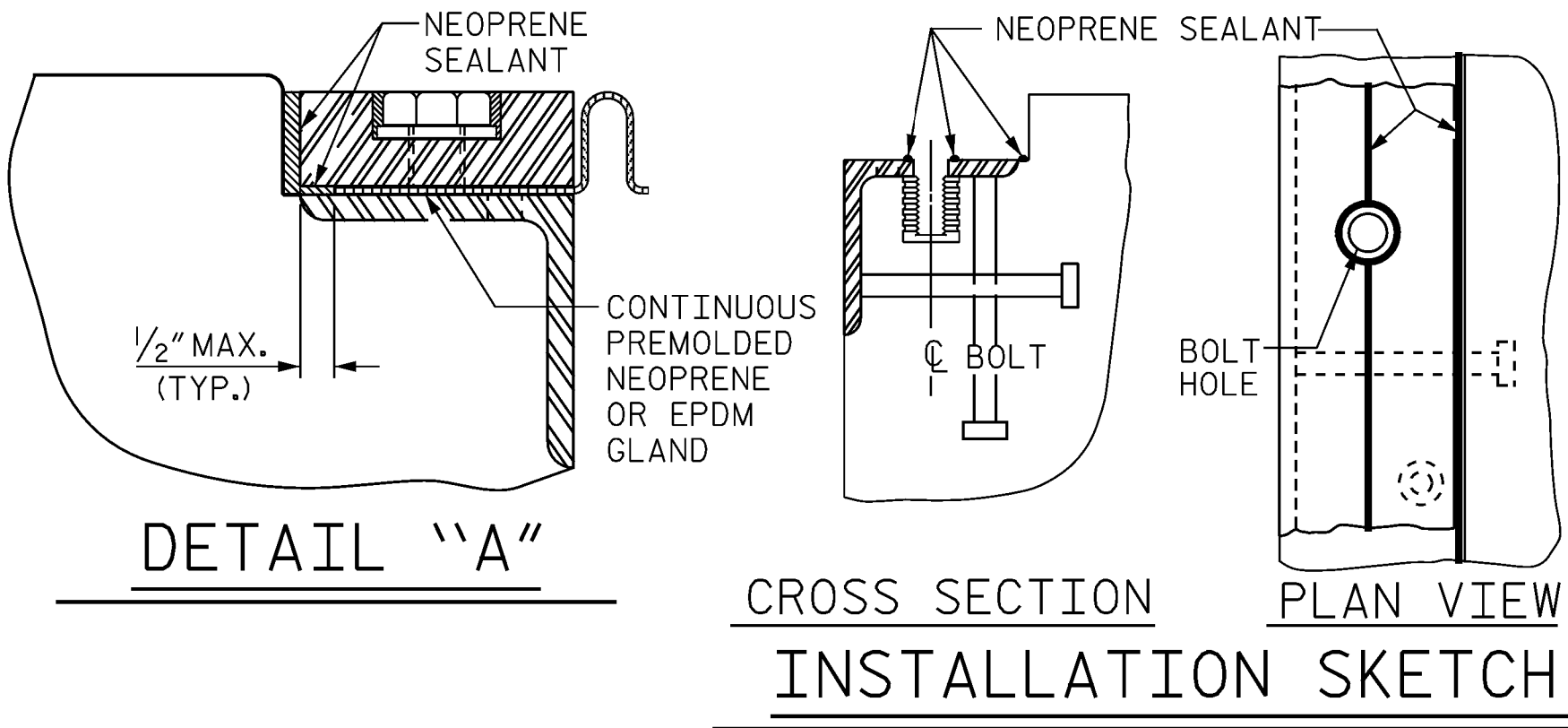
* THE QUANTITY OF #4 J1 BARS ON THE BILL OF MATERIAL IS BASED ON 1'-0"CENTERS. J1 BARS SHALL BE PLACED AT EACH VERTICAL STUD ANCHOR BOLT. IN THE EVENT THAT THE NUMBER OF VERTICAL STUD ANCHORS EXCEEDS THE NUMBER OF J1 BARS SPECIFIED, ADDITIONAL J1 BARS WILL NOT BE REQUIRED.

INSTALLATION PROCEDURE

1. A TEMPLATE OR OTHER SUITABLE DEVICE SHALL BE USED TO FORM THE TOP OF THE EXPANSION JOINT SEAL BLOCKOUT TO THE PROPER DEPTH AND WIDTH. THE TEMPLATE SHALL BE 4/8"TO 4/4"WIDE AND OF SUCH THICKNESS AS TO PROVIDE FOR CORRECT FINAL ELEVATION OF TOP OF HOLD-DOWN PLATES. THE TEMPLATE SHALL BE ATTACHED TO THE BASE ANGLE ASSEMBLY WITH THE 3/4"Ø HEX HEAD BOLTS PROVIDED FOR THE HOLD-DOWN PLATES. A 1"Ø HOLE SHALL BE PROVIDED IN THE TEMPLATE CENTERED OVER EACH WEEP HOLE IN THE 4"X 4"X 1/2"BASE ANGLE. OTHER METHODS OF INSURING DRAINAGE THROUGH WEEP HOLES MAY BE EMPLOYED SUBJECT TO ENGINEER'S APPROVAL.
2. AFTER THE CONCRETE HAS BEEN CAST ON BOTH SIDES OF THE JOINT, REMOVE THE TEMPLATE. THOROUGHLY CLEAN THE BOLT HOLES AND THE ANGLE PLATE. REMOVE ANY EXCESS CONCRETE THAT COMES OUT OF THE WEEP HOLES. ANY DAMAGED STEEL SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS (METALLIZATION).
3. LAY THE GLAND ON THE BASE ANGLE AND FIELD MARK THE GLAND FOR THE BOLT HOLES. HOLES IN THE GLAND SHALL BE PUNCHED 7/8"IN DIAMETER WITH A HAND PUNCH.
4. IN ORDER TO CHECK FOR PROPER ALIGNMENT, PLACE THE GLAND AND HOLD-DOWN PLATES ON THE BASE ANGLE. DO NOT APPLY NEOPRENE SEALANT. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE BUT DO NOT TIGHTEN. THE ENGINEER SHALL INSPECT THE JOINT SEAL DEVICE FOR PROPER ALIGNMENT.
5. AFTER INSPECTION, REMOVE THE HOLD-DOWN PLATES AND GLAND. APPLY NEOPRENE SEALANT TO THE BASE ANGLE IN ACCORDANCE WITH THE "INSTALLATION SKETCH". PLACE GLAND AND HOLD-DOWN PLATES ON THE BASE ANGLE. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE ASSEMBLY AND TORQUE THE BOLTS TO 88 FT-LBS WITH A TORQUE WRENCH. CHECK THE TORQUE AFTER THREE (3) HOURS AND, IF NECESSARY, RETIGHTEN TO 88 FT-LBS. A FINAL CHECK SHALL BE MADE AT SEVEN (7) DAYS. TORQUE SHALL NOT BE LESS THAN 80 FT-LBS AFTER SEVEN (7) DAYS.
6. AFTER PROPER TORQUING, CLEAN THE BOLT HOLE RECESSES, THE RECESS BETWEEN THE JOINT SEAL DEVICE AND CONCRETE, AND THE LIFTING HOLES IN THE HOLD-DOWN PLATE, AND COMPLETELY FILL THE RECESSES AND LIFTING HOLES WITH NEOPRENE SEALANT.

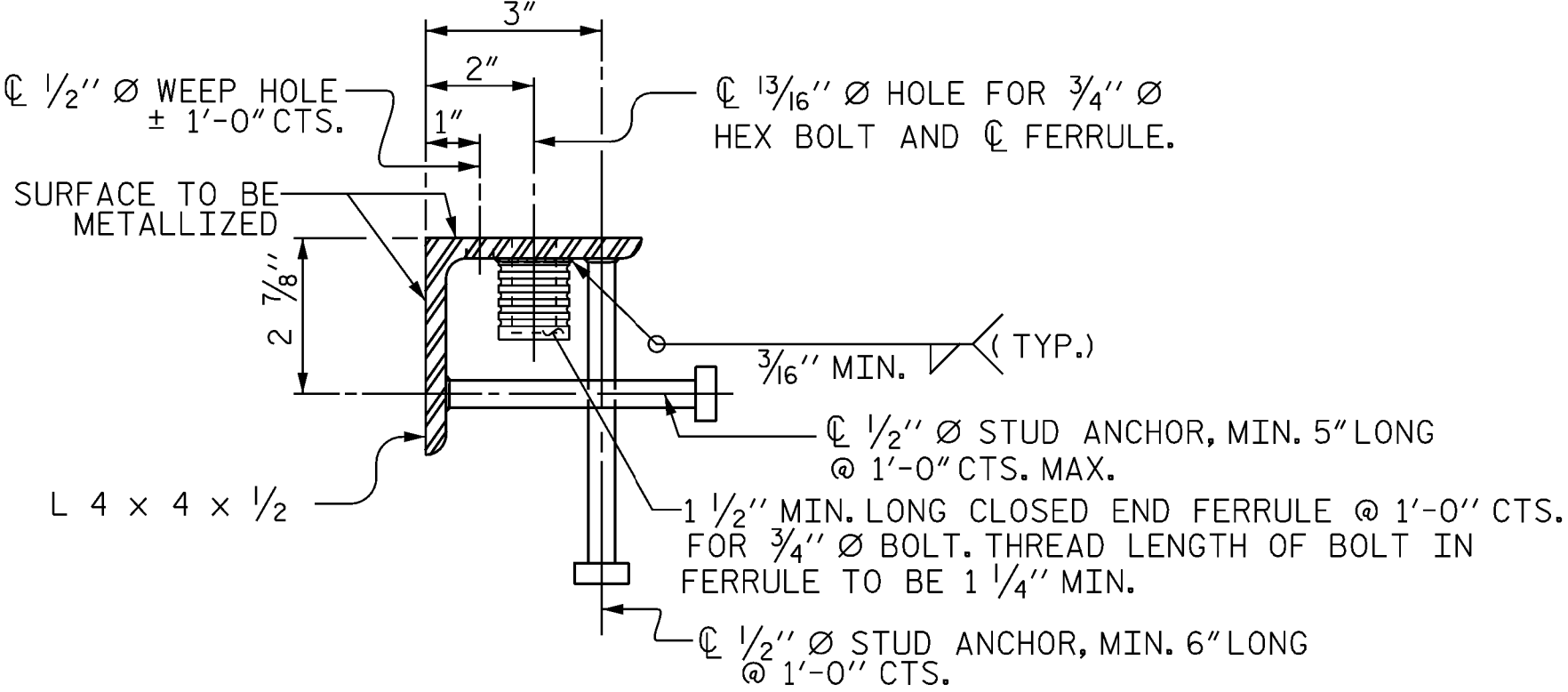
GENERAL NOTES

1. FOR EXPANSION JOINT SEALS, SEE SPECIAL PROVISIONS.
2. ALL PLATES AND ANGLES SHALL CONFORM TO AASHTO M270 GRADE 36 STEEL OR APPROVED EQUAL. ALL HOLD-DOWN BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL CONFORM TO ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL. ALL STUD ANCHORS SHALL CONFORM TO AASHTO M169, GRADES 1010 THRU 1020 OR APPROVED EQUAL. ALL CONCRETE INSERTS SHALL BE CLOSED END AND SHALL CONFORM TO AASHTO M169, GRADE 12L14. TENSILE CAPACITY SHALL BE 3000 LBS. MINIMUM.
3. A PREMOLDED CORRUGATED OR NON-CORRUGATED GLAND SHALL BE USED FOR JOINTS SKEWED BETWEEN 50° THRU 130°. FOR JOINTS SKEWED LESS THAN 50° OR MORE THAN 130°, ONLY A CORRUGATED GLAND SHALL BE USED.
4. CLOSED END FERRULES AND STUD ANCHORS SHALL BE SHOP WELDED AND ALL HOLES SHALL BE SHOP DRILLED AS SHOWN ON PLANS. STUD ANCHORS SHALL BE ELECTRIC ARC END WELDED WITH COMPLETE FUSION.
5. SURFACES COMING IN CONTACT WITH NEOPRENE SHALL BE GROUND SMOOTH PRIOR TO METALLIZING.
6. UPON COMPLETION OF SHOP FABRICATION, THE HOLD-DOWN PLATE AND BASE ANGLE ASSEMBLY, AS SHOWN IN THE "TYPICAL SECTION OF BASE ANGLE ASSEMBLY", SHALL BE METALLIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.
7. THE COVER PLATES SHALL BE GALVANIZED OR METALLIZED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. FOR THERMAL SPRAYED COATINGS (METALLIZATION), SEE SPECIAL PROVISIONS.
8. BASE ANGLE ASSEMBLY SHALL BE CONTINUOUS FOR THE LENGTH OF THE JOINT. AT CROWN BREAKS, THE ENDS OF THE BASE ANGLE ASSEMBLY SHALL BE CUT PARALLEL TO THE BRIDGE CENTERLINE FOR SKEWS LESS THAN 80° AND GREATER THAN 100°. FINISHED WELD SHALL BE REPAIRED IN ACCORDANCE WITH THE SPECIAL PROVISION FOR THERMAL SPRAYED COATINGS (METALLIZATION).
9. FIELD SPLICES OF HOLD-DOWN PLATES SHALL BE KEPT TO A MINIMUM. CONTRACTOR SHALL FURNISH DETAILED PLANS SHOWING PROPOSED SPLICE LOCATIONS FOR APPROVAL. HOLD-DOWN PLATES SHALL NOT EXCEED 20' LENGTHS UNLESS APPROVED BY THE ENGINEER.
10. NO ALTERNATE JOINT DETAILS SHALL BE PERMITTED IN LIEU OF THOSE SHOWN ON THESE PLANS.
11. THE CONTRACTOR MAY, AT HIS OPTION, USE ADHESIVELY ANCHORED ANCHOR BOLTS IN PLACE OF CONCRETE INSERTS FOR COVER PLATES. THE YIELD LOAD OF THE 3/4"Ø BOLT IS 10 KIPS. FIELD TESTING OF THE ADHESIVE BONDING SYSTEM IS NOT REQUIRED.
12. THE FABRICATOR SHALL PROVIDE 1/2"Ø THREADED HOLES IN THE HOLD-DOWN PLATES TO ASSIST IN LIFTING AND PLACING. THE HOLES SHALL BE 3/4"DEEP AT 6'-0" MAXIMUM SPACING AND A MINIMUM OF TWO HOLES PER PLATE.



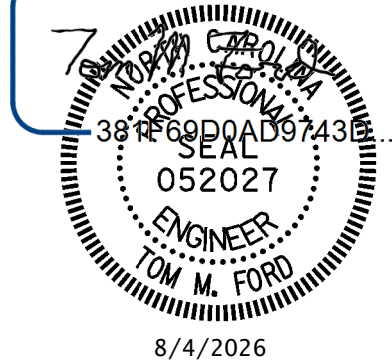
DETAIL- FIELD WELD SPLICE OF BASE ANGLE

MOVEMENT AND SETTING AT JOINT					
BENT NO.	SKEW ANGLE	TOTAL MOVEMENT (ALONG C RDWY)	PERPENDICULAR JOINT OPENING AT 45° F	PERPENDICULAR JOINT OPENING AT 60° F	PERPENDICULAR JOINT OPENING AT 90° F
END BENT 1	90°-00'-00"	1 1/2"	2"	1 3/4"	1 5/8"
END BENT 2	90°-00'-00"	1 13/16"	2 3/16"	1 15/16"	1 3/8"



TYPICAL SECTION OF BASE ANGLE ASSEMBLY

DocuSigned by:



8/4/2026

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 1 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

EXPANSION JOINT SEAL DETAILS

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

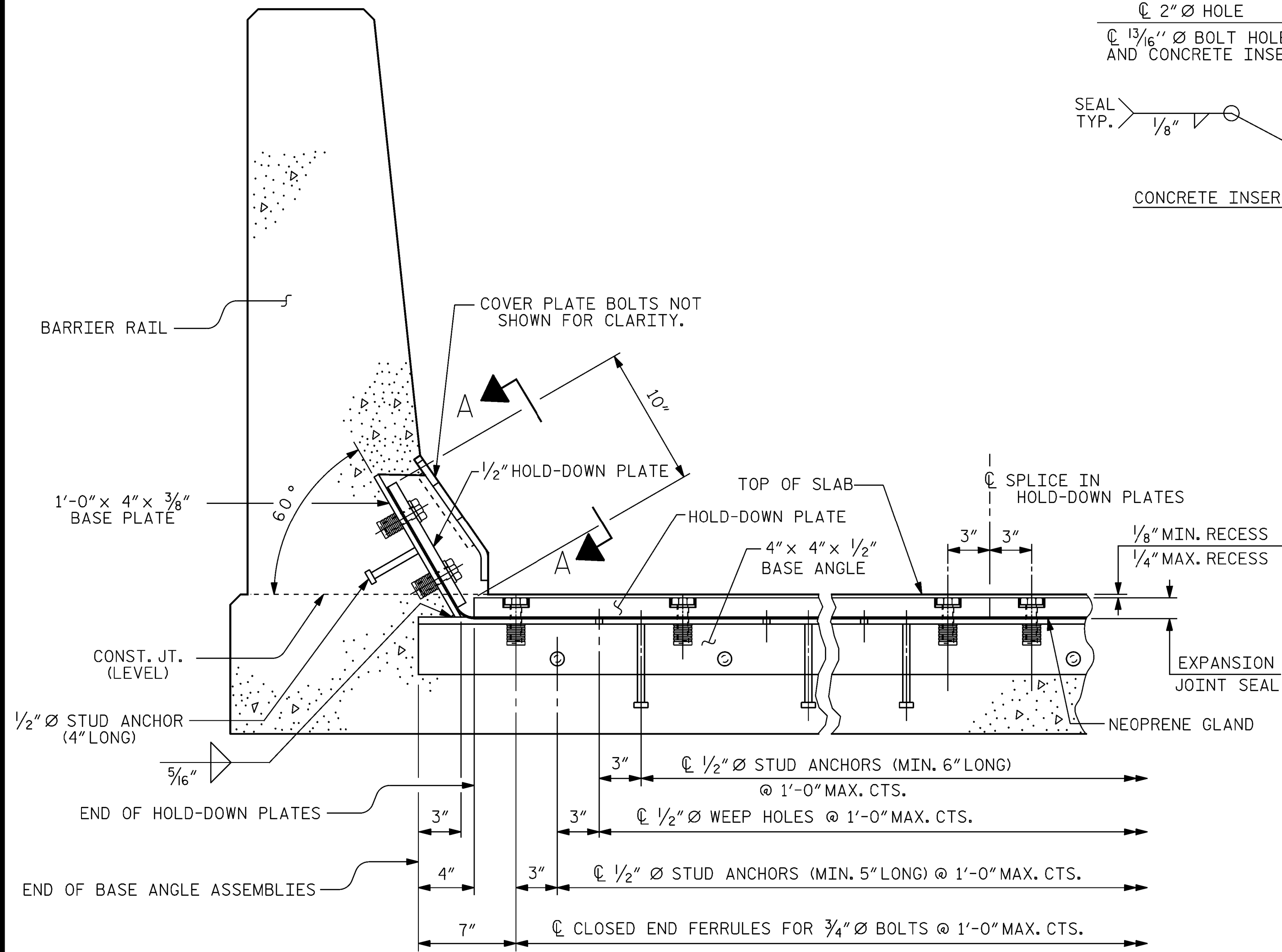
GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

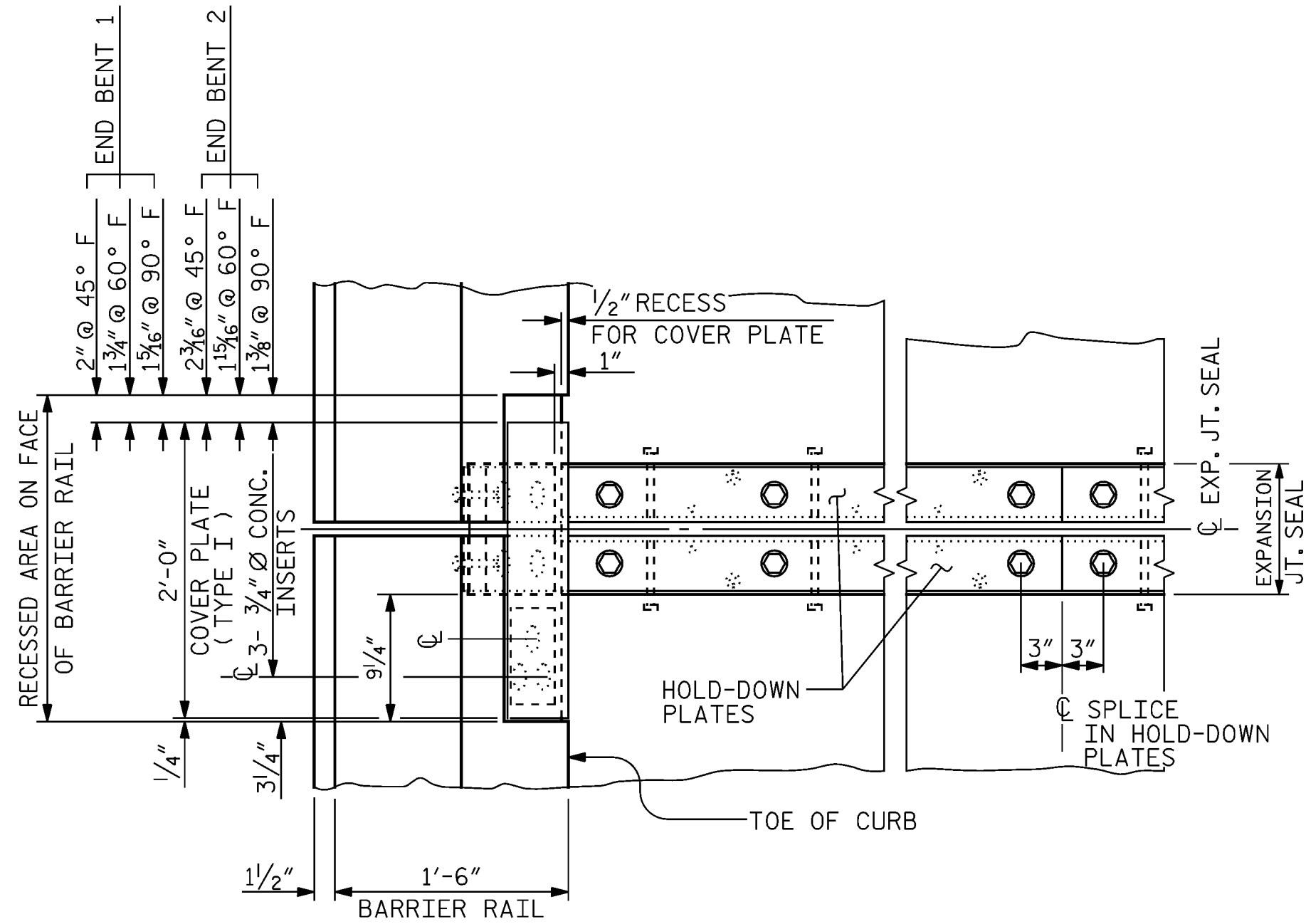
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		TOTAL SHEETS
2			4		44

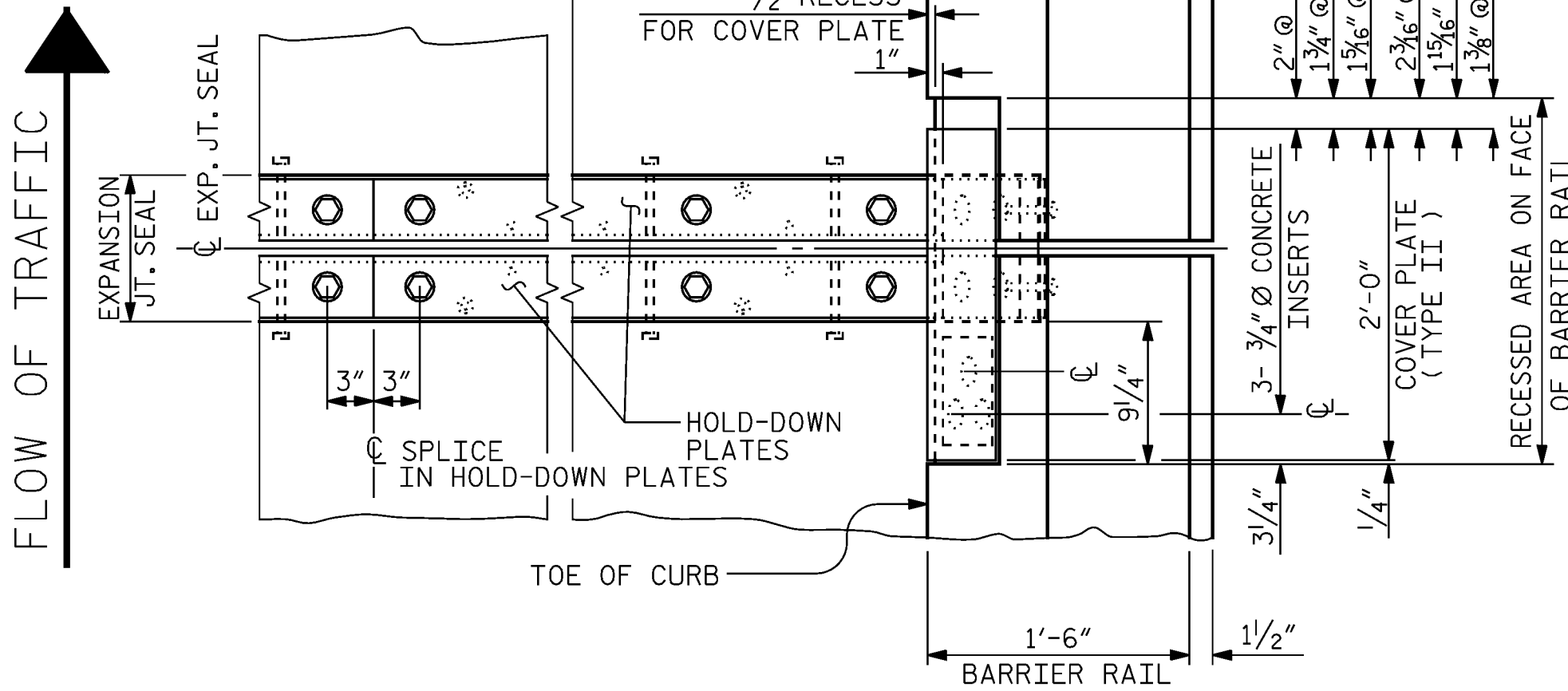
STR. #2



SECTION THRU RAIL NORMAL TO JOINT

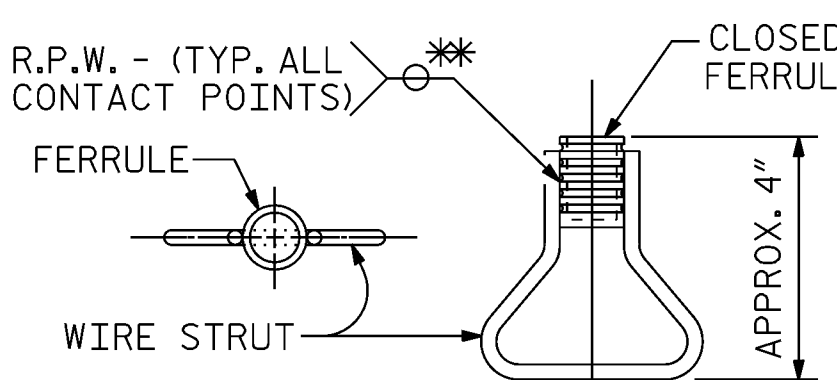


PLAN OF EXPANSION JOINT SEAL



BLOCK OUT DETAIL

SEE "SECTION A - A" FOR OTHER DETAILS.



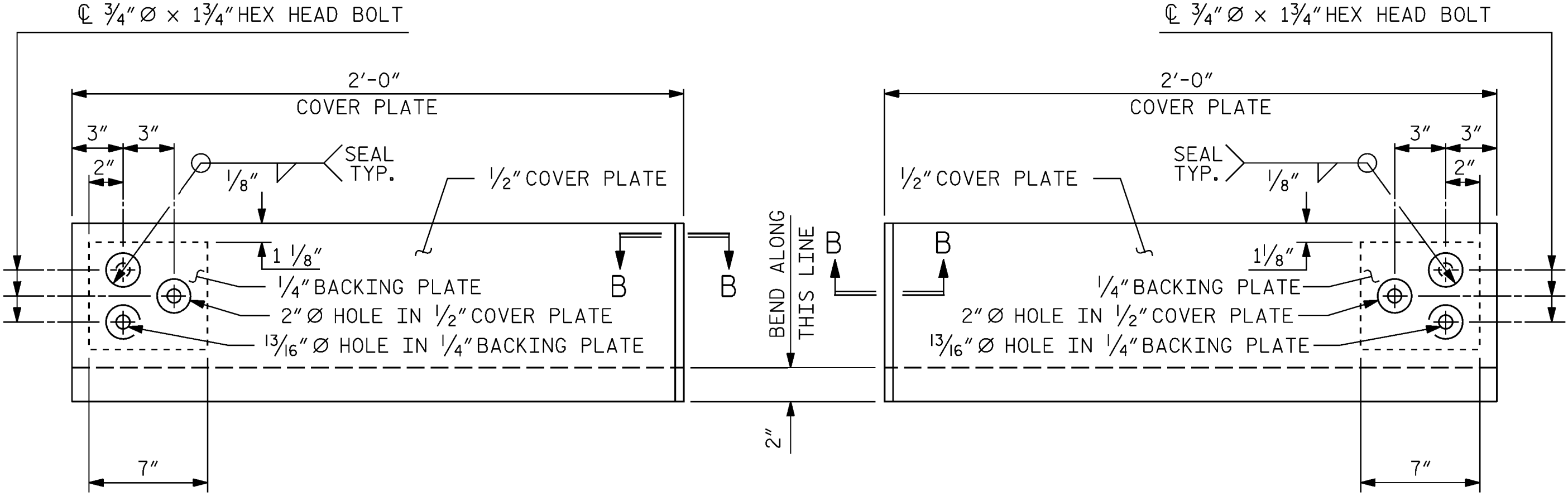
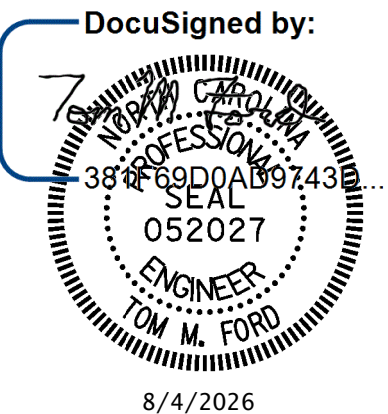
CONCRETE INSERT

*EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

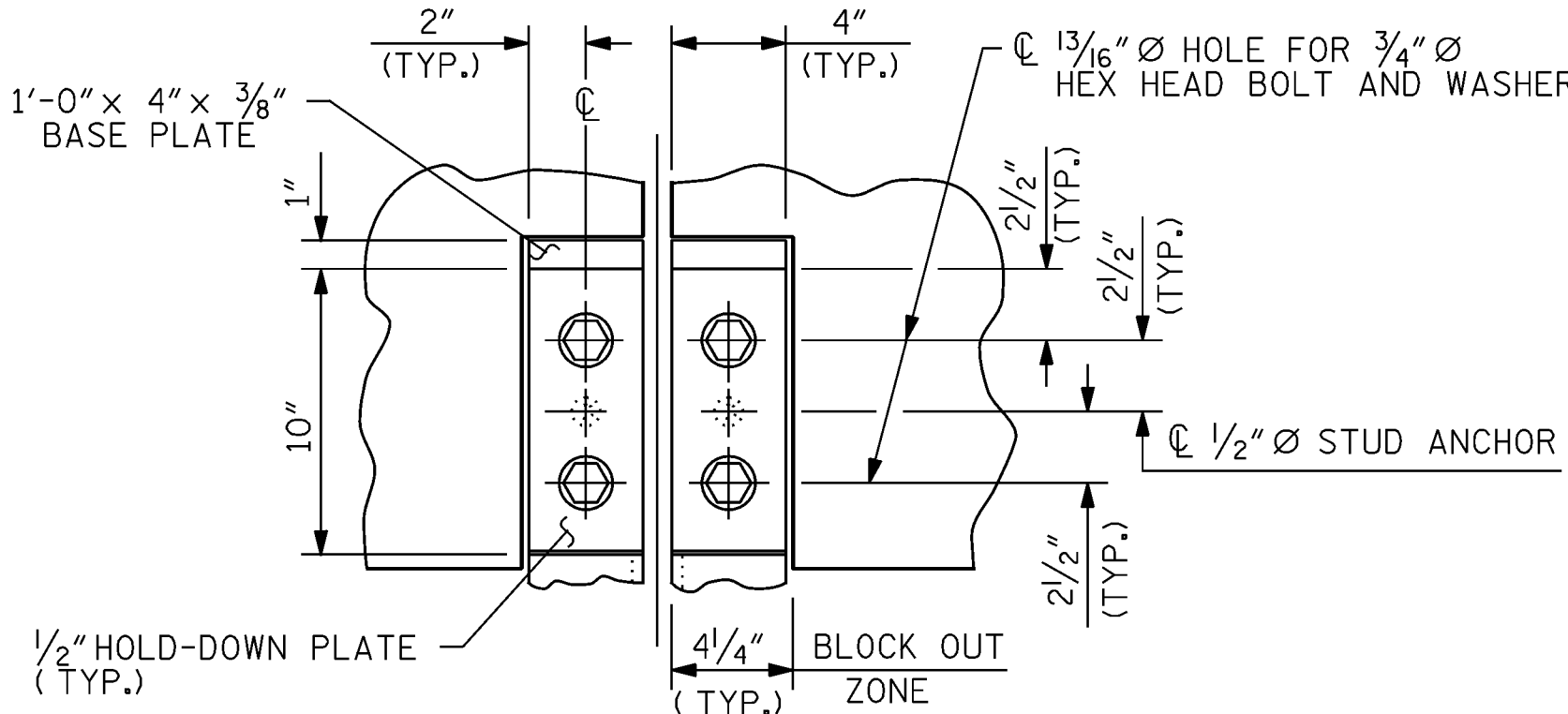
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



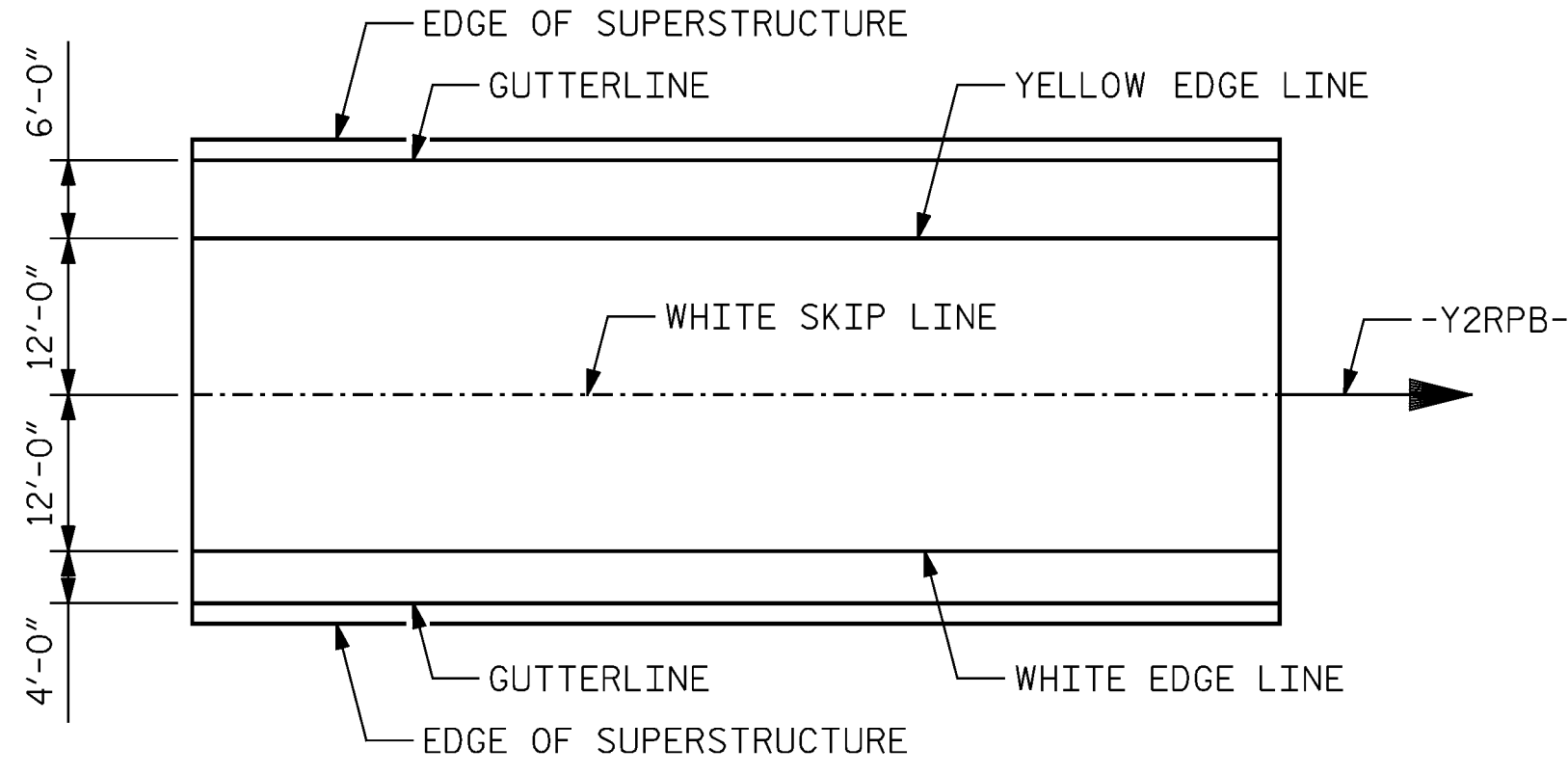
TYPE I - ELEVATION VIEW

TYPE II - ELEVATION VIEW

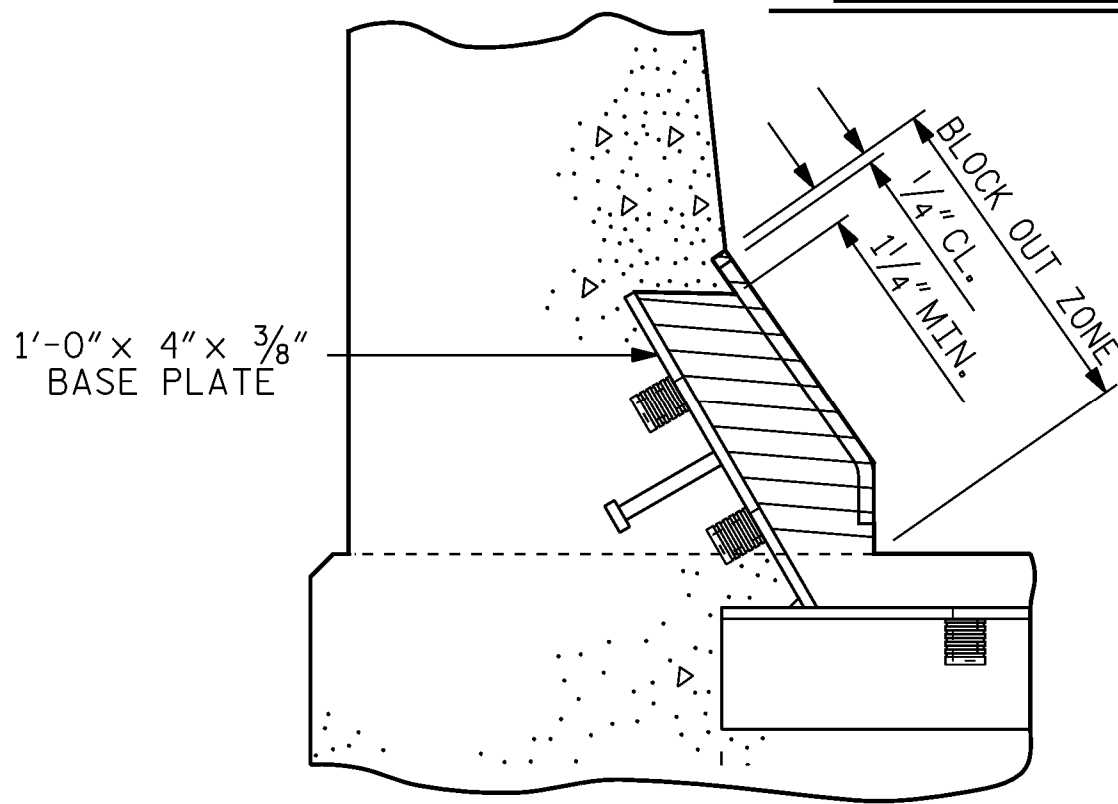
COVER PLATE DETAILS



SECTION A - A

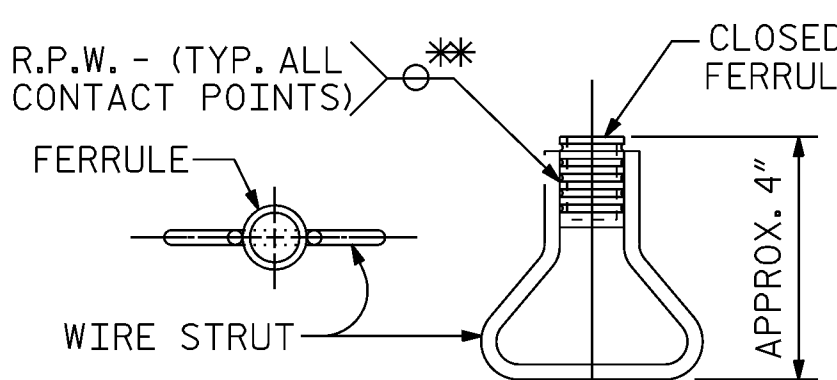


PAVEMENT MARKING ALIGNMENT



BLOCK OUT DETAIL

SEE "SECTION A - A" FOR OTHER DETAILS.



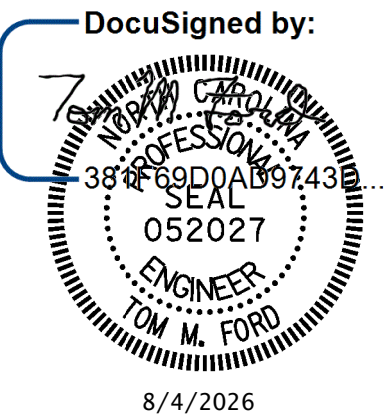
CONCRETE INSERT

*EACH WELDED ATTACHMENT OF WIRE TO FERRULE SHALL DEVELOP THE TENSILE STRENGTH OF THE WIRE.



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 2

REVISIONS				SHEET NO.
NO.	BY:	DATE:	DATE:	
1				S2-28
2				

REVISIONS				SHEET NO.
NO.	BY:	DATE:	DATE:	
3				S2-28
4				

REVISIONS				SHEET NO.
NO.	BY:	DATE:	DATE:	
5				S2-28
6				

STR. #2

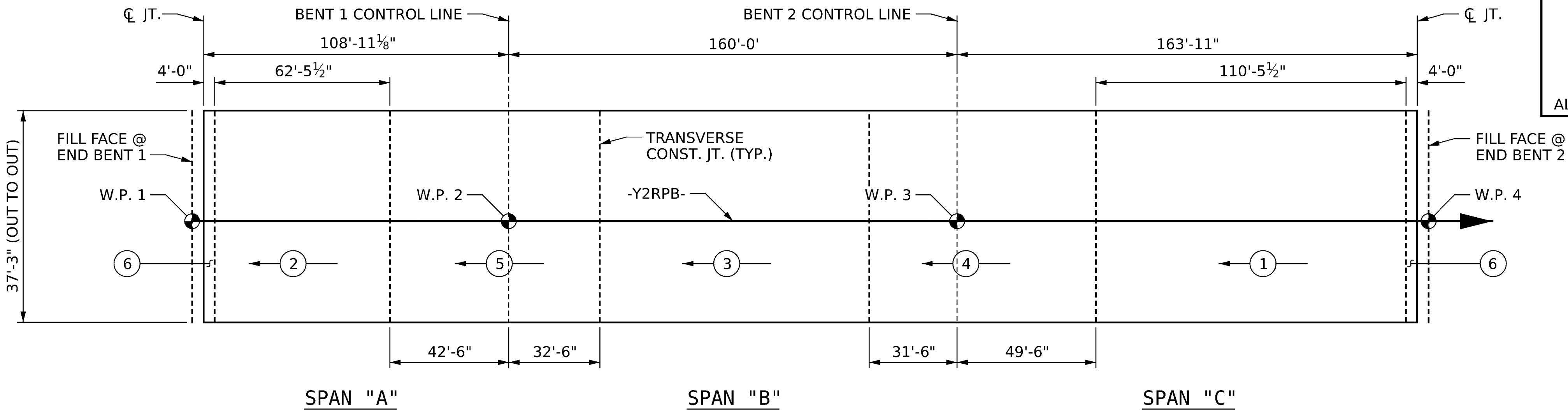
STD. NO. EJS2

DocuSign Envelope ID: 2B6EC2A8-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_057_I2513AC_SWU_BM_S2-29_100905

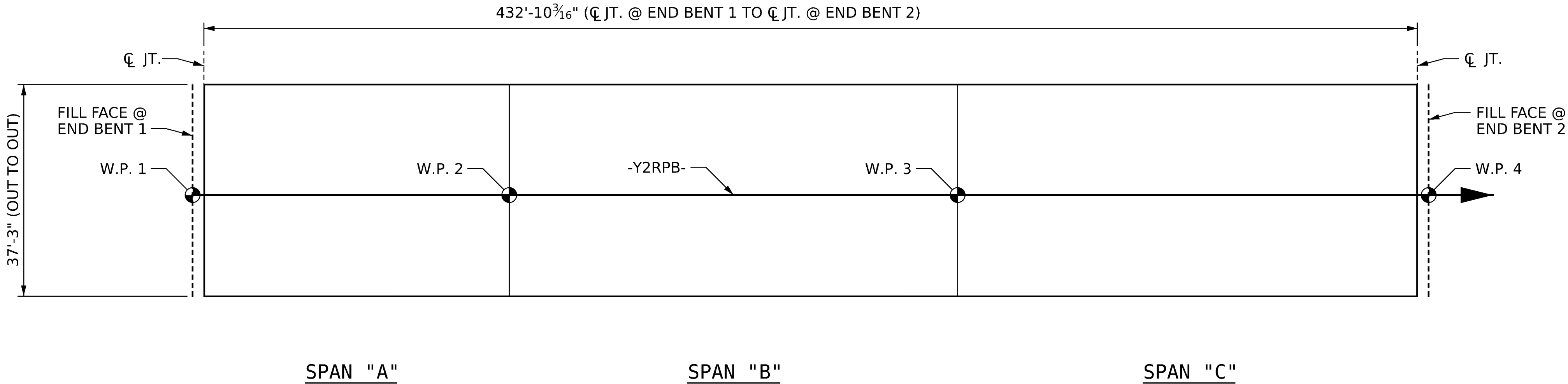
8/4/2026 1:06:06 PM pdf_color_gfclt-FS.plt Hominy-1-12-26.tbl

SUPERSTRUCTURE REINFORCING STEEL LENGTHS ARE BASED ON THE FOLLOWING MINIMUM SPLICE LENGTHS					
BAR SIZE	SUPERSTRUCTURE EXCEPT APPROACH SLABS, PARAPET, AND BARRIER RAIL		APPROACH SLABS		PARAPET AND BARRIER RAIL
	EPOXY COATED	UNCOATED	EPOXY COATED	UNCOATED	
#4	1'-11"	1'-7"	1'-11"	1'-7"	2'-6"
#5	2'-5"	2'-0"	2'-5"	2'-0"	3'-1"
#6	2'-10"	2'-5"	3'-7"	2'-5"	3'-8"
#7	4'-2"	2'-9"			
#8	4'-9"	3'-2"			



PLAN - POURING SEQUENCE

← (#) → INDICATES POUR NUMBER AND POUR DIRECTION



LAYOUT FOR COMPUTING REINFORCED CONCRETE DECK SLAB (SQ. FT. = 16,124)

BAR TYPES		REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	TYPE	LENGTH	WEIGHT		
*A1	865	5	STR	36'-11"	33,307		
A2	865	5	STR	36'-11"	33,307		
*B1	243	5	STR	50'-3"	12,736		
*B2	24	6	STR	40'-5"	1,457		
*B3	48	6	STR	46'-10"	3,377		
*B4	24	6	STR	48'-8"	1,755		
*B5	48	6	STR	55'-1"	3,971		
B6	414	5	STR	49'-11"	21,555		
*G1	2	5	STR	36'-11"	78		
*K1	12	5	1	10'-11"	137		
*K2	12	5	2	15'-0"	188		
*S1	54	4	3	4'-4"	157		
*J1	68	4	4	1'-5"	65		
TOTAL REINFORCING STEEL				LBS.	54,862		
* TOTAL EPOXY COATED REINFORCING STEEL				LBS.	57,228		

ALL DIMENSIONS ARE OUT TO OUT

SUPERSTRUCTURE BILL OF MATERIAL			
	CLASS AA CONCRETE	REINFORCING STEEL	EPOXY COATED REINFORCING STEEL
	(CU. YDS)	(LBS.)	(LBS.)
SPANS A-C		54,862	57,228
POUR #1	147.1	-	-
POUR #2	83.2	-	-
POUR #3	127.8	-	-
POUR #4	107.9	-	-
POUR #5	99.9	-	-
POUR #6	10.7	-	-
TOTALS **	576.6	54,862	57,228

** QUANTITIES FOR BARRIER RAIL ARE NOT INCLUDED

GROOVING BRIDGE FLOORS	
APPROACH SLABS	1,509 SQ. FT.
BRIDGE DECK	13,405 SQ. FT.
TOTAL	14,914 SQ. FT.

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

DocuSigned by:
7
3816680AD8743D052027
ENGINEER
TOM M. FORD
8/4/2026

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUPERSTRUCTURE BILL OF MATERIAL

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		S2-29
2			4		TOTAL SHEETS 44

STR. #2



EPOXY COAT THE END BENT CAP AFTER ADJUSTMENTS ARE MADE TO BEARINGS AND ANCHOR BOLTS ARE GROUTED.



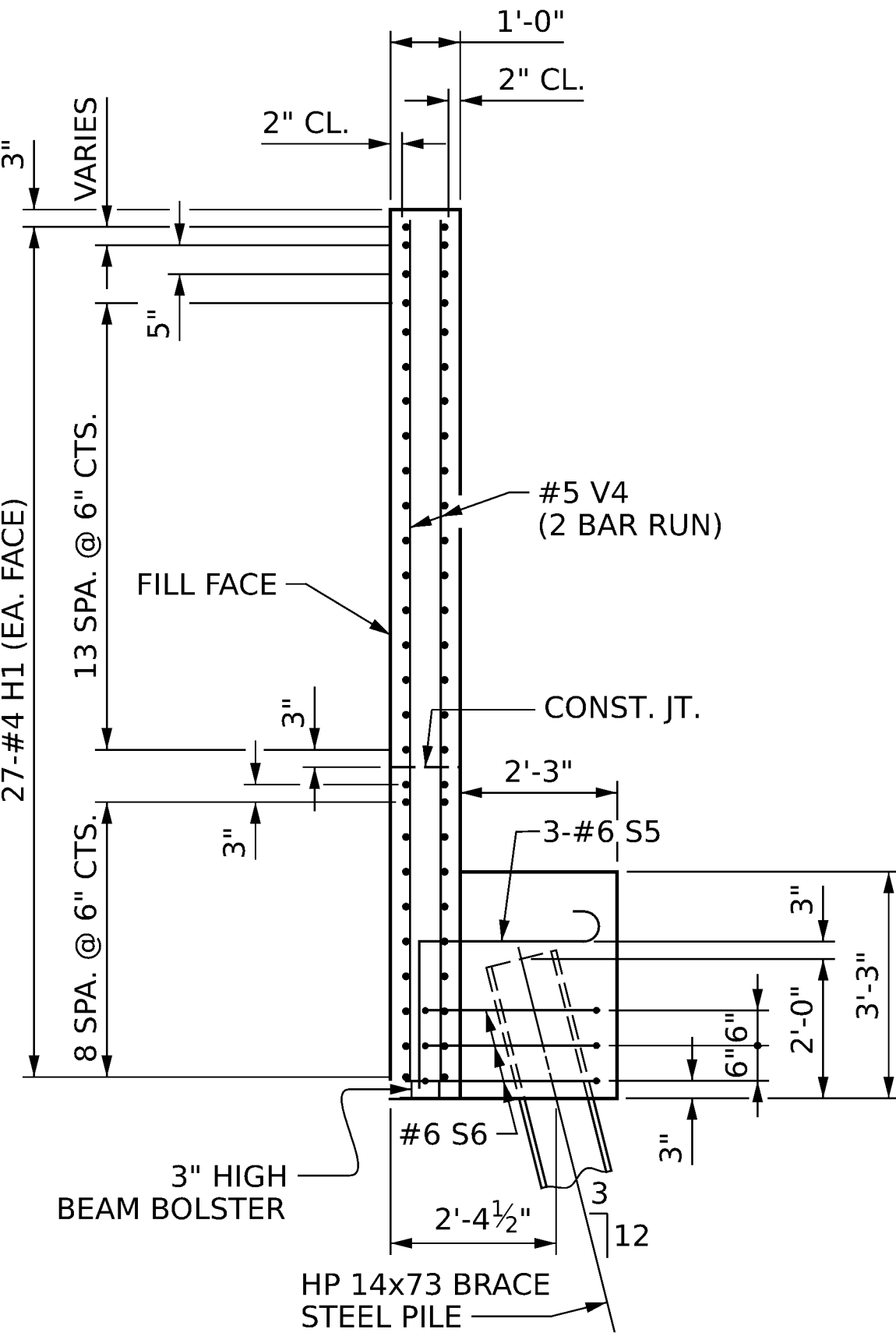
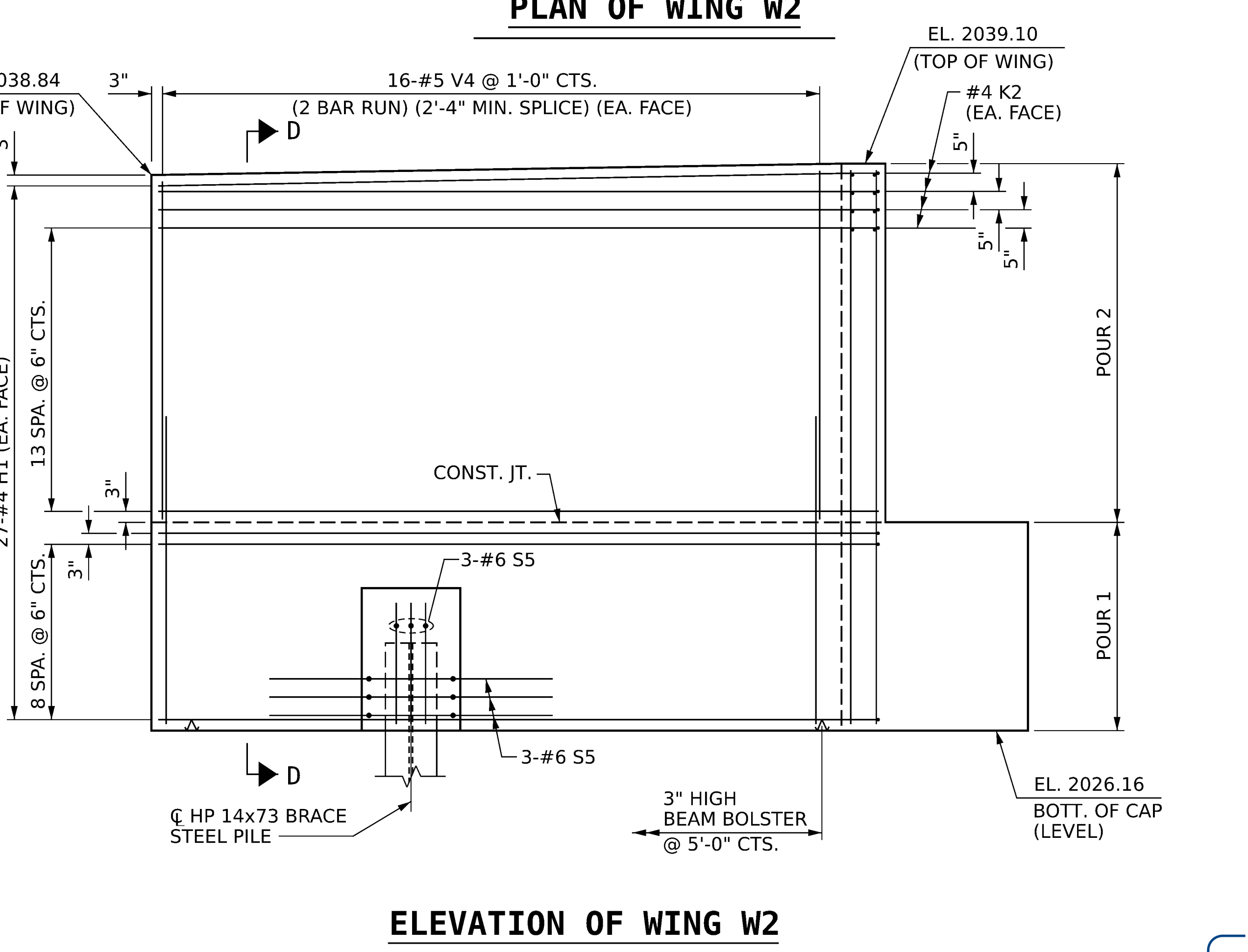
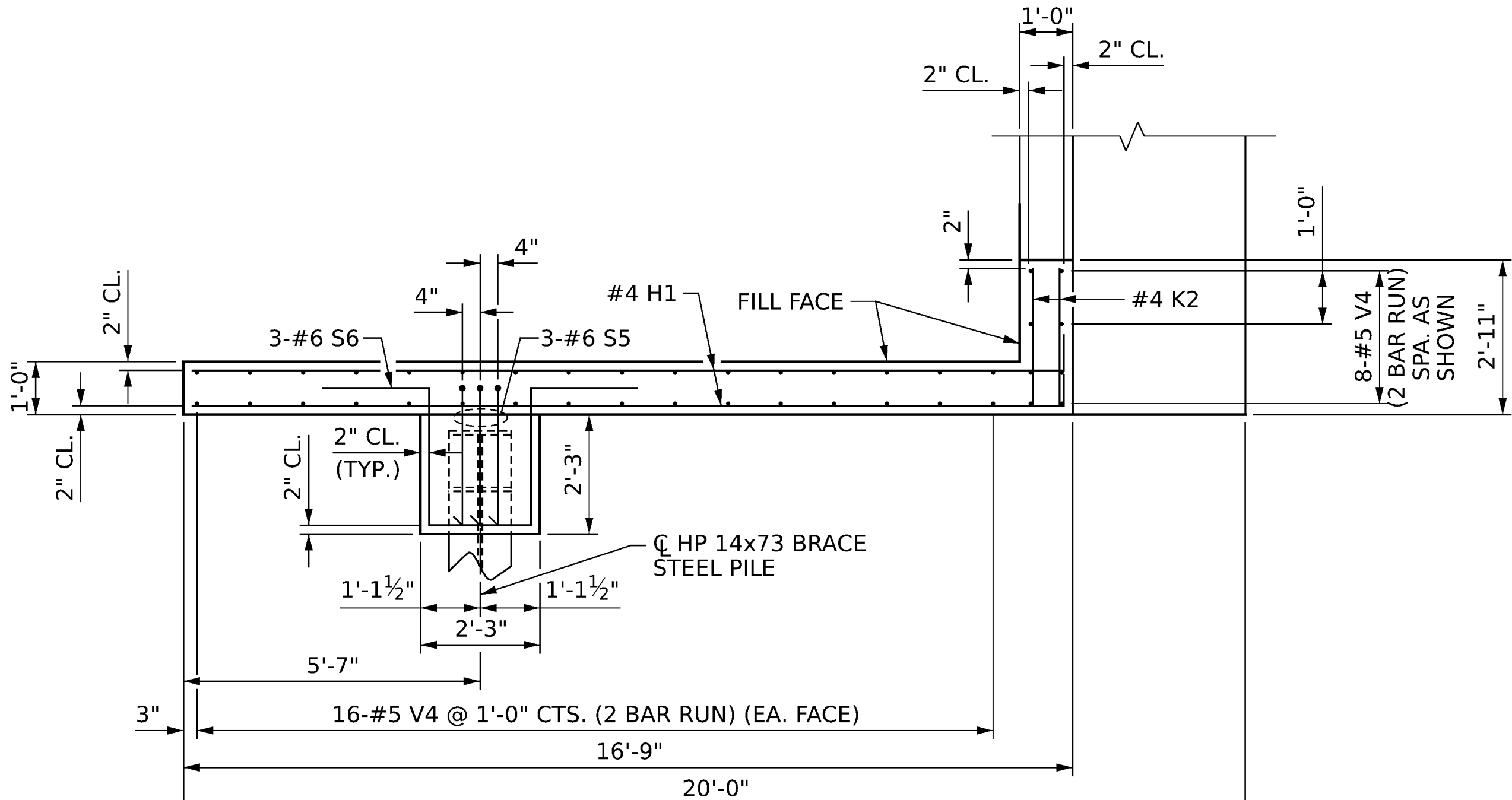
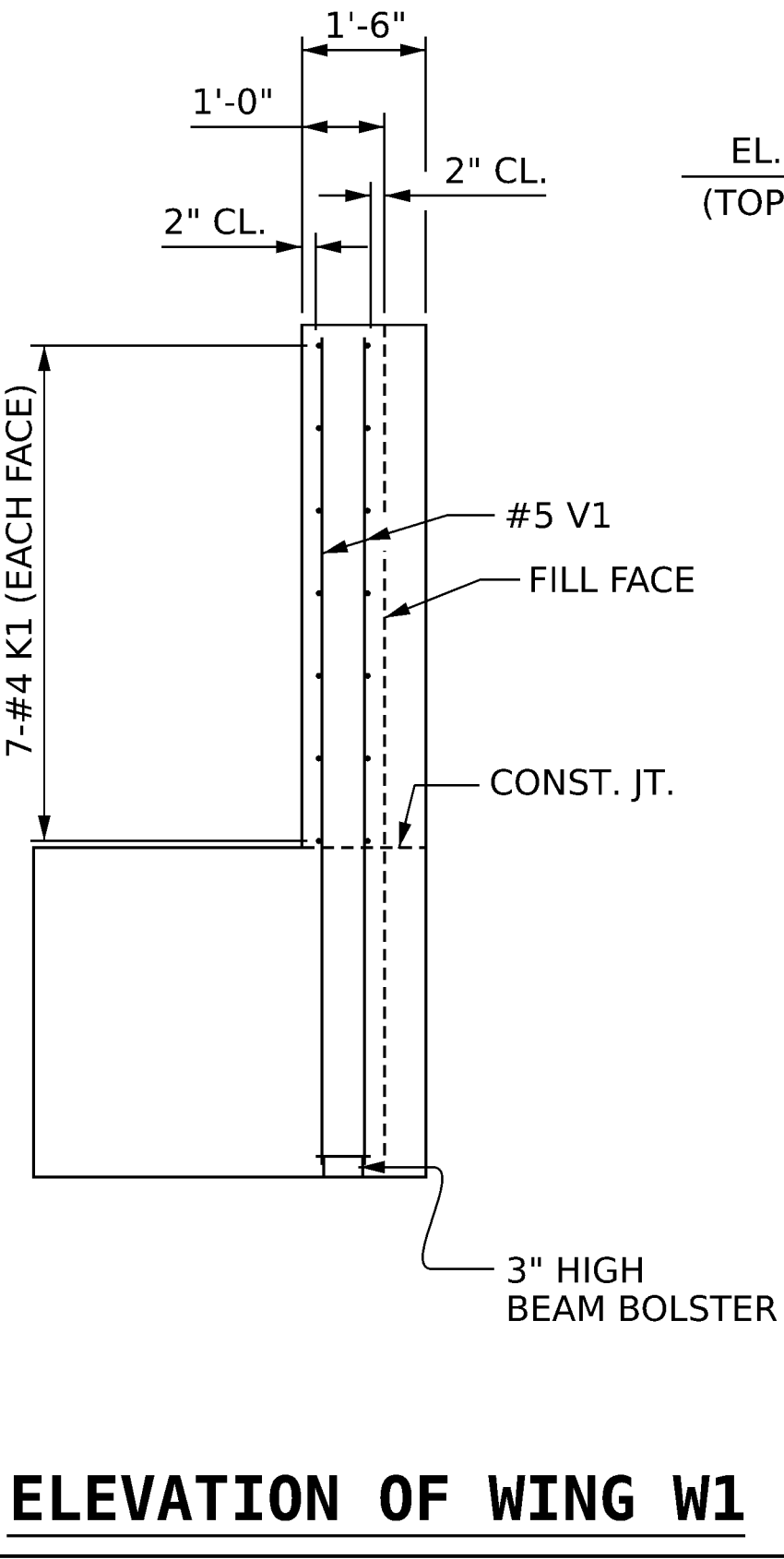
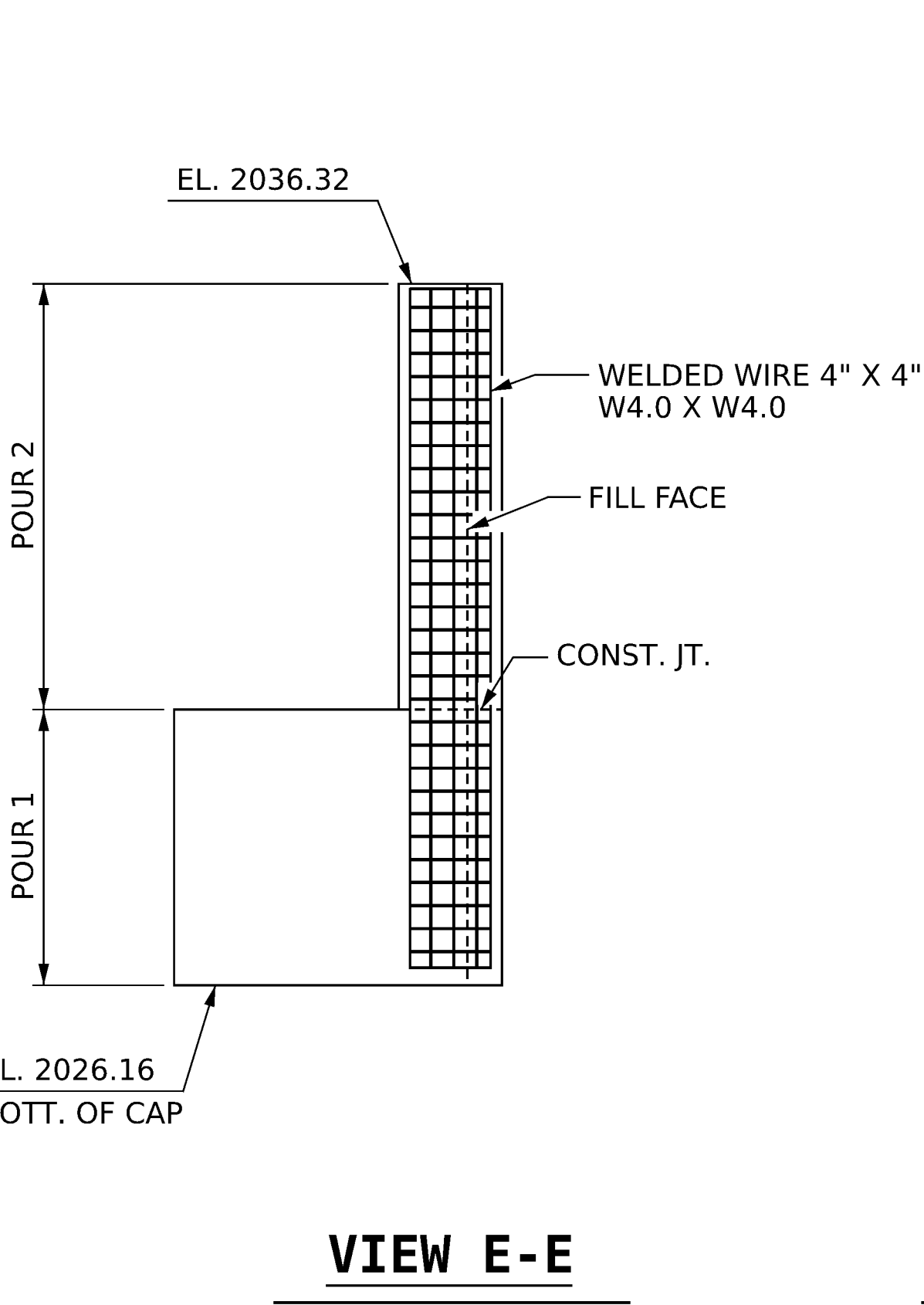
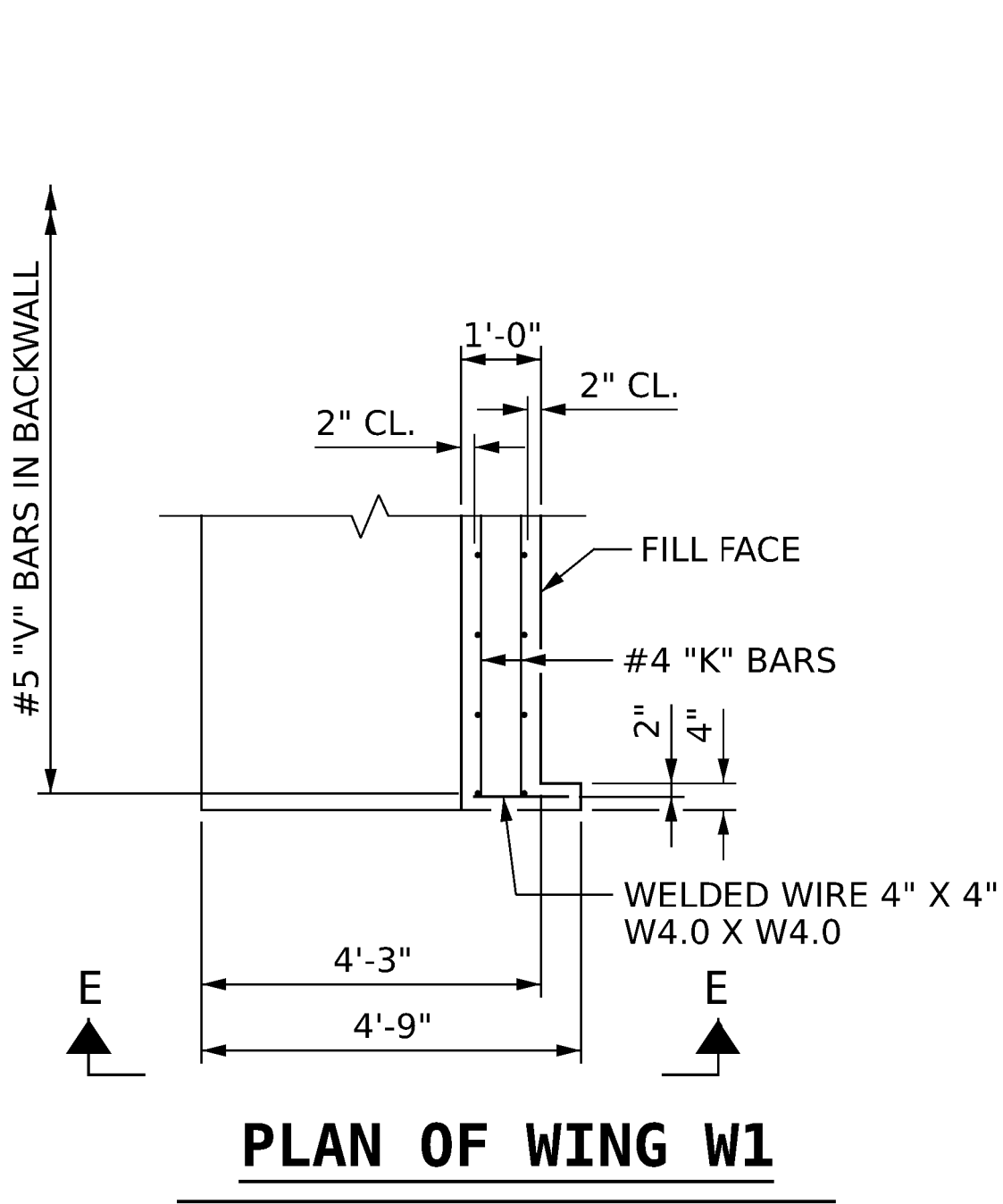
8/4/2026

REVISIONS						SHEET 1 S2-3
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

dw://gfnrt-pw.bentley.com/gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_061_I2513AF-SMU_E102_S2-31_100905

8/4/2026 1:06:41 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tb1



PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT 1
DETAILS

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

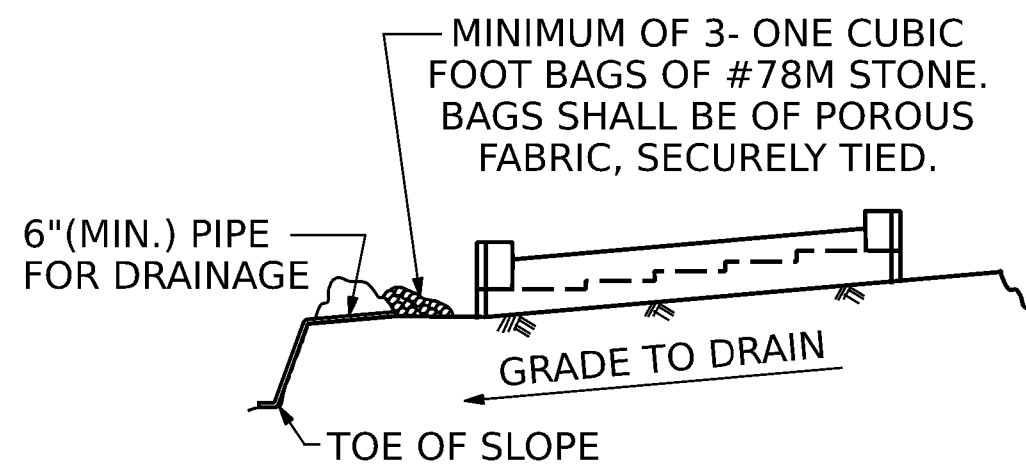
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			44

STR. #2

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DocuSigned by:
7
381668200AD8743D
052027
ENGINEER
TOM M. FORD
8/4/2026

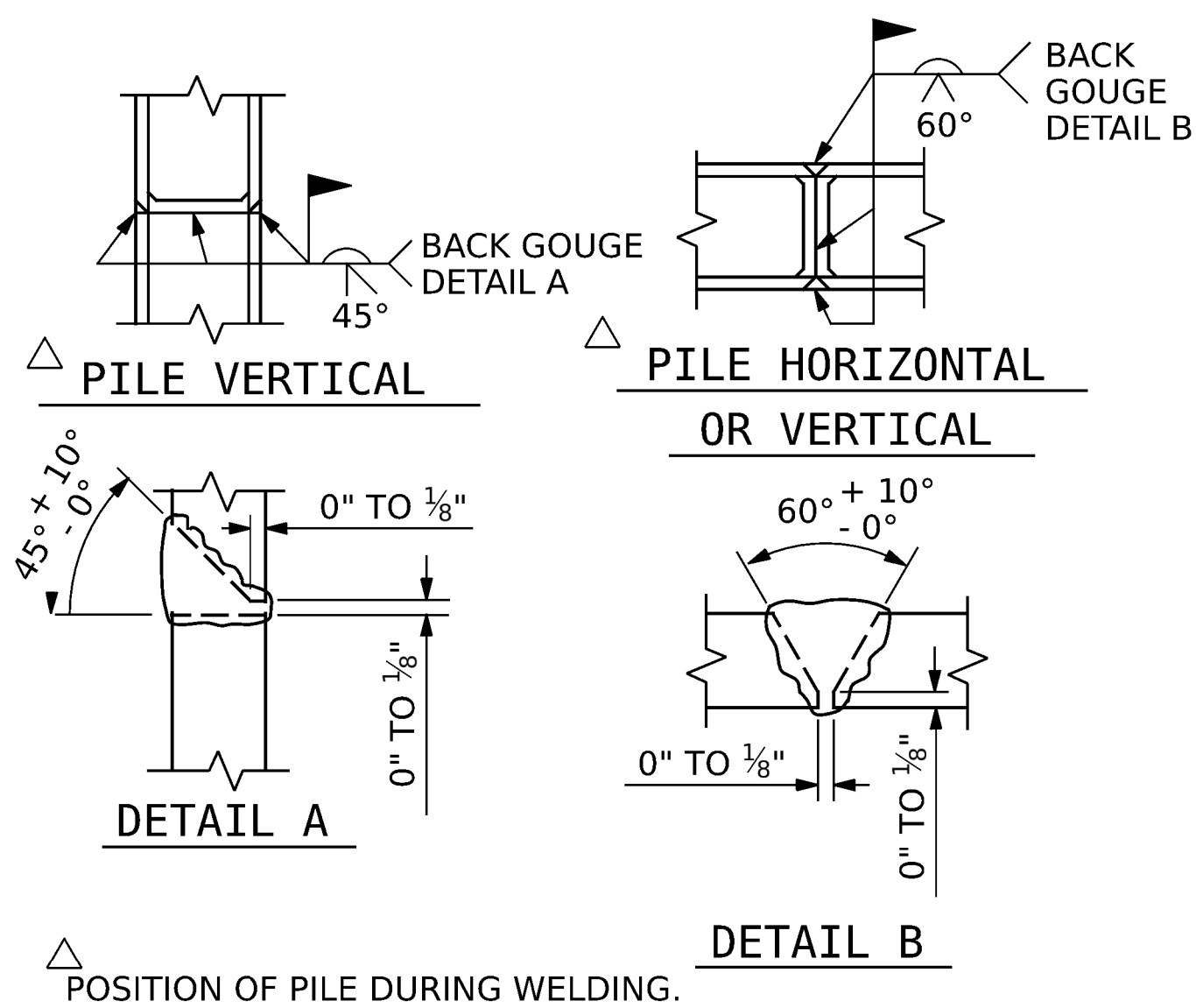


TEMPORARY DRAINAGE AT END BENT

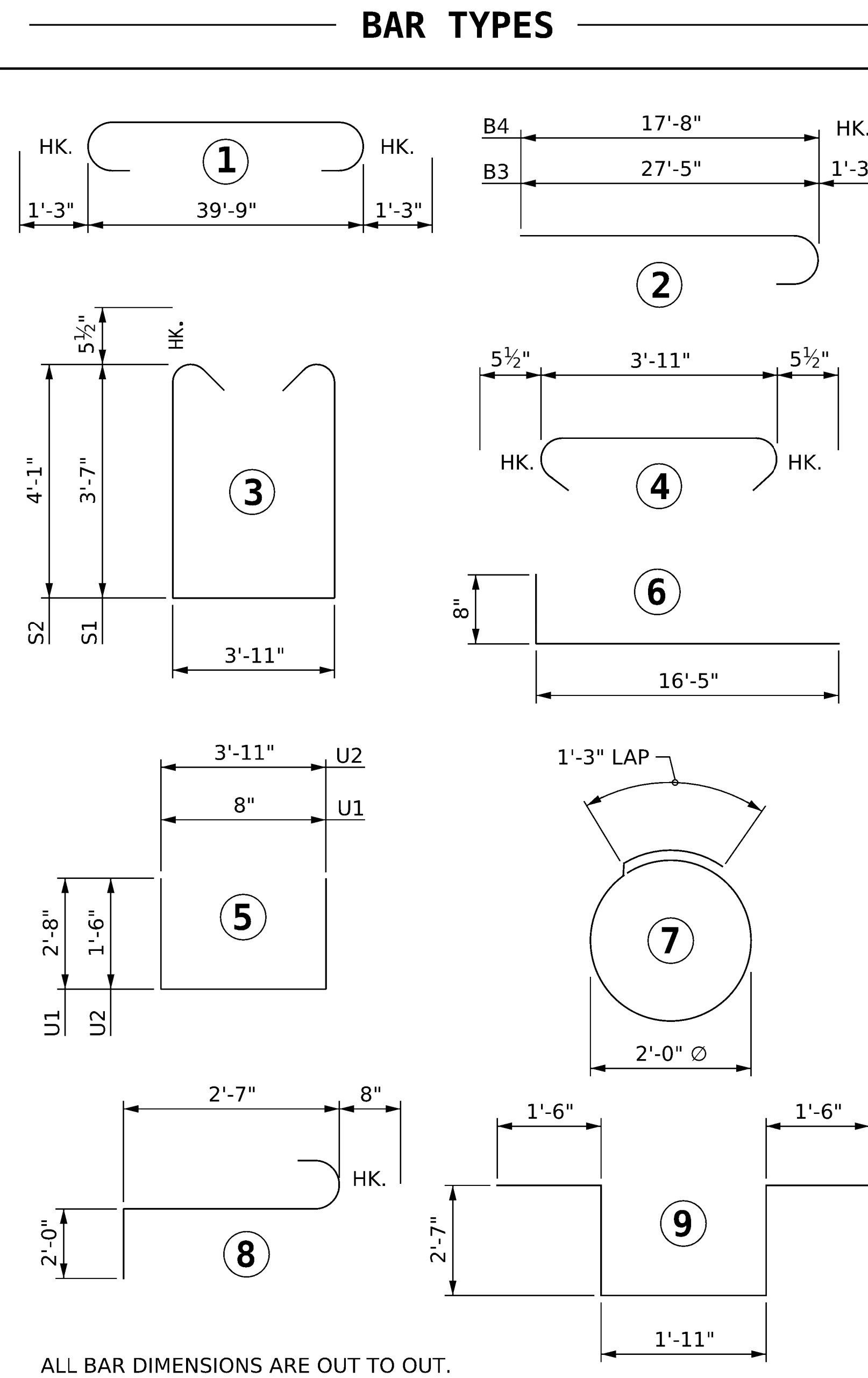
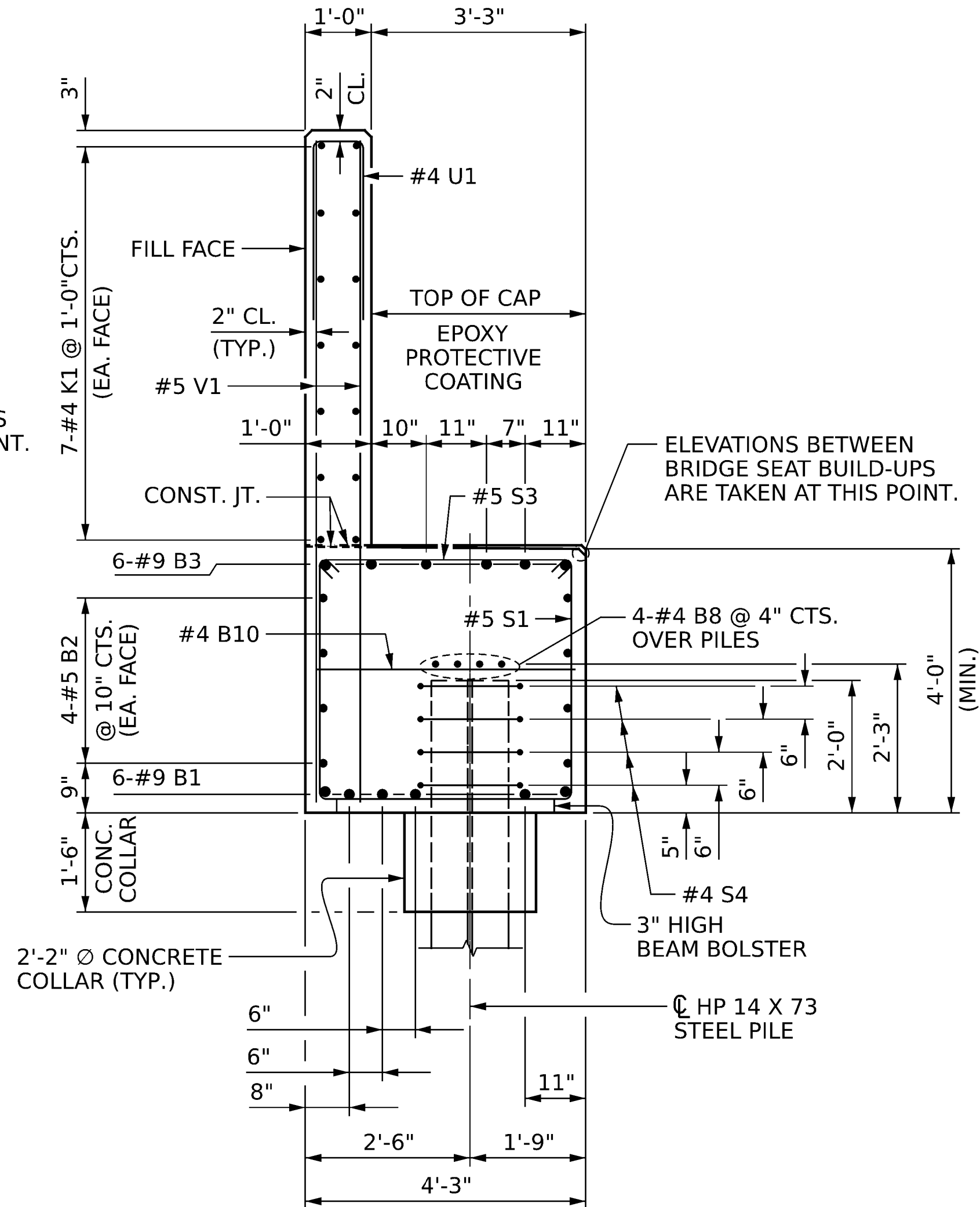
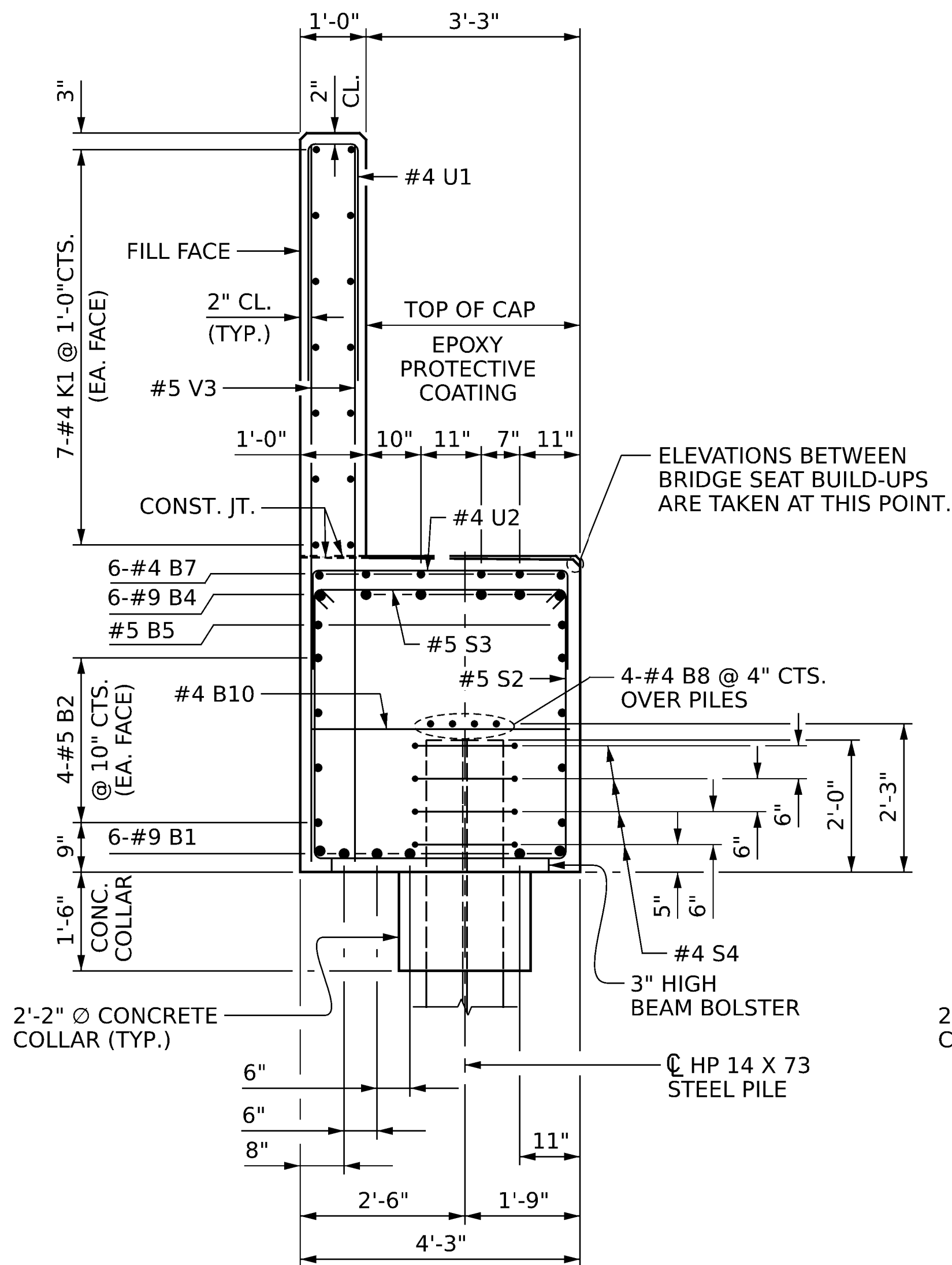
BAGGED STONE AND PIPE SHALL BE PLACED IMMEDIATELY AFTER COMPLETION OF END BENT EXCAVATION. PIPE MAY BE EITHER CONCRETE, CORRUGATED STEEL, CORRUGATED ALUMINUM ALLOY, OR CORRUGATED PLASTIC. PERFORATED PIPE WILL NOT BE ALLOWED.

BAGGED STONE SHALL REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS THAT IT BE REMOVED. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF SILT ACCUMULATIONS AT BAGGED STONE WHEN SO DIRECTED BY THE ENGINEER. BAGS SHALL BE REMOVED AND REPLACED WHENEVER THE ENGINEER DETERMINES THAT THEY HAVE DETERIORATED AND LOST THEIR EFFECTIVENESS.

NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK AND THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT CONTRACT PRICE BID FOR THE SEVERAL PAY ITEMS.



PILE SPLICE DETAILS



NOTES:

SEE GEOTECHNICAL FOUNDATION TABLES FOR ADDITIONAL PILE INFORMATION.

* TOTAL LENGTH: ASSUMES SINGLE 5' WIDE STRIP CUT INTO TWO STRIPS FOR VERTICAL COPING. 10'-0" X 1'-2" AREA AT END BENT 1.

PROJECT NO. **I-2513AC**

BUNCOMBE COUNTY

STATION: 19+17.50 -Y2RPB-

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

END BENT 1 DETAILS

DocuSigned by:
7
ROBERT CARROLL
PROFESSIONAL
381F68B0AD9743DE
052027
ENGINEER
TOM M. FORD
8/4/2026

DRAWN BY : J. MYA DATE : 4/2024
 CHECKED BY : J. FARNHAM DATE : 6/2024
 DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

GFT

GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO. S2-32
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			



FOR NOTES, SEE SHEET 3 OF 3.

(TYP. EA. BRIDGE SEAT)

SHEET 1 OF 3

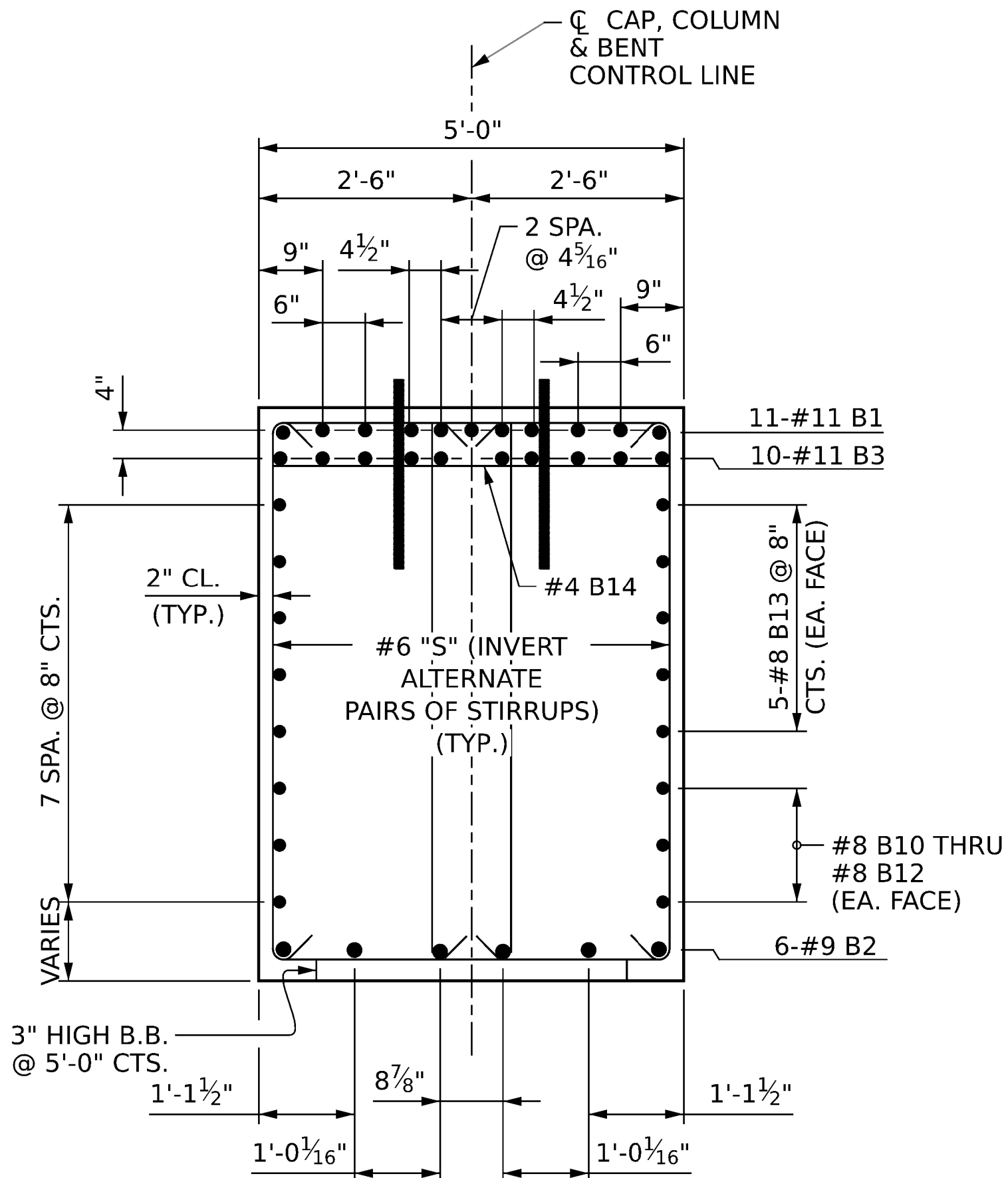
SUBSTRUCTURE BENT 1 AND 2

REVISIONS						SHEET NO. S2-33
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS 44
2			4			

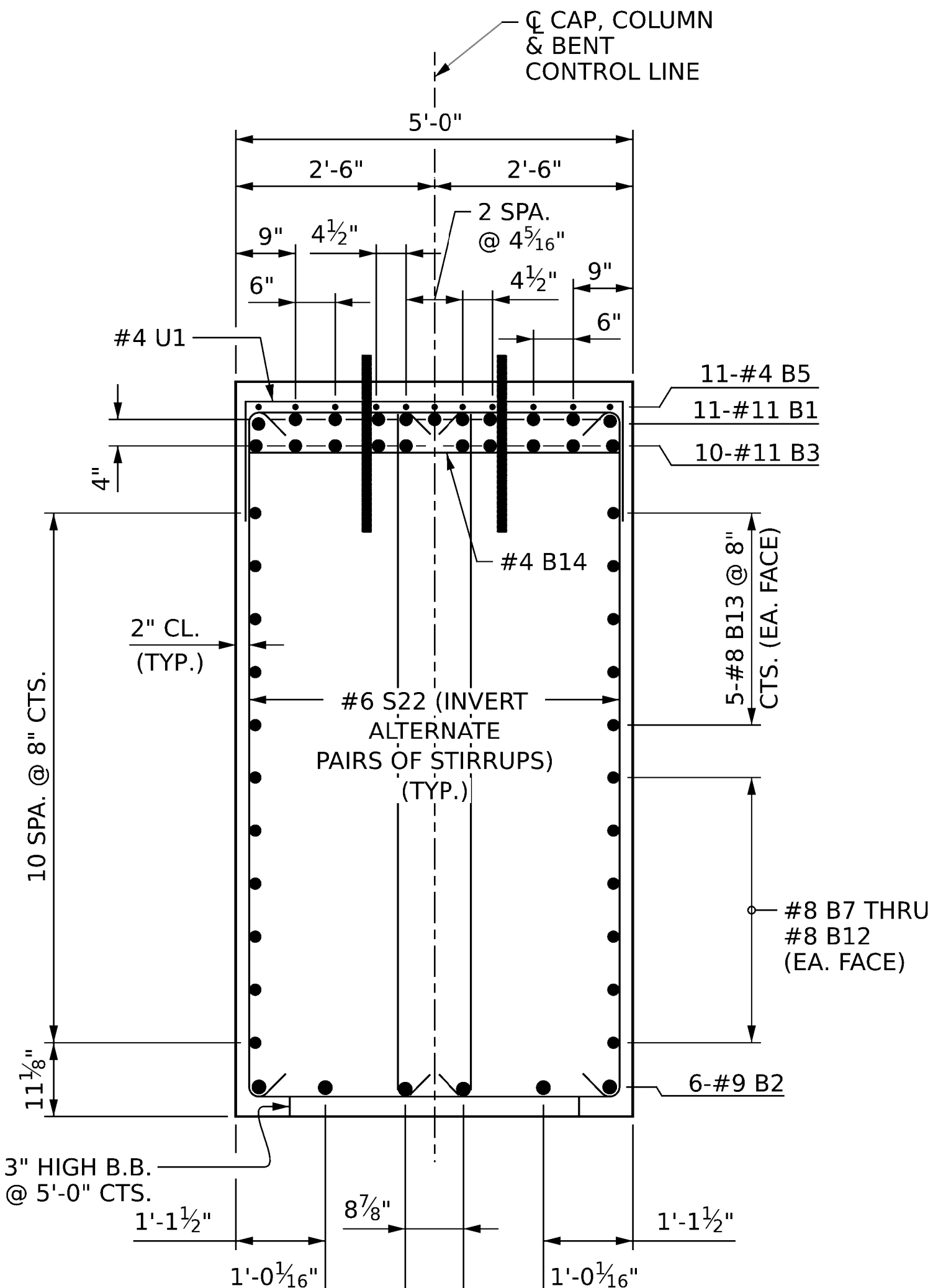
DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

pw://gfnrt-pw.bentley.com/gfnet-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_067_12513AC_SMU_B102_S2-34_100905

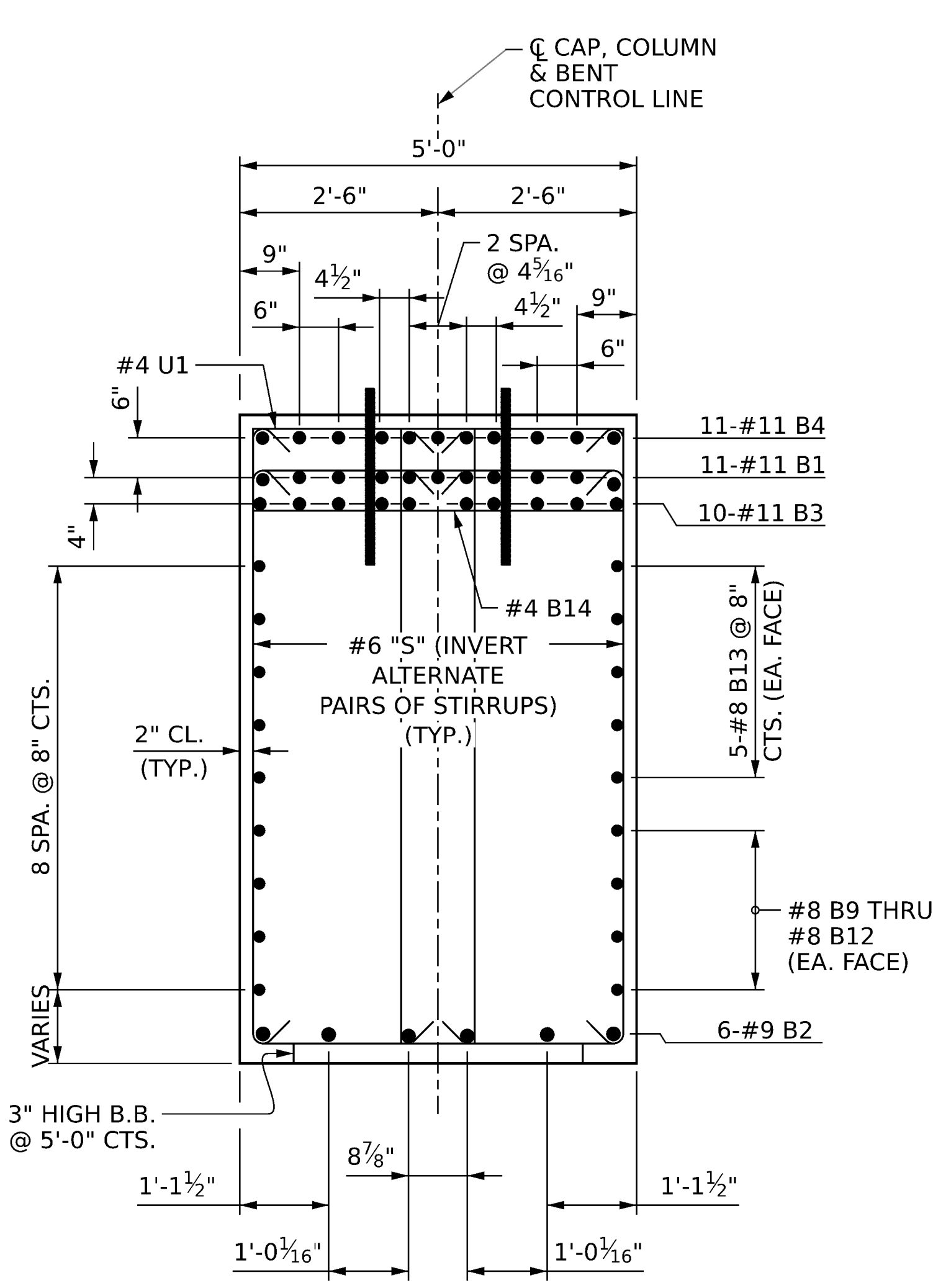
8/4/2026 1:08:10 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tbl



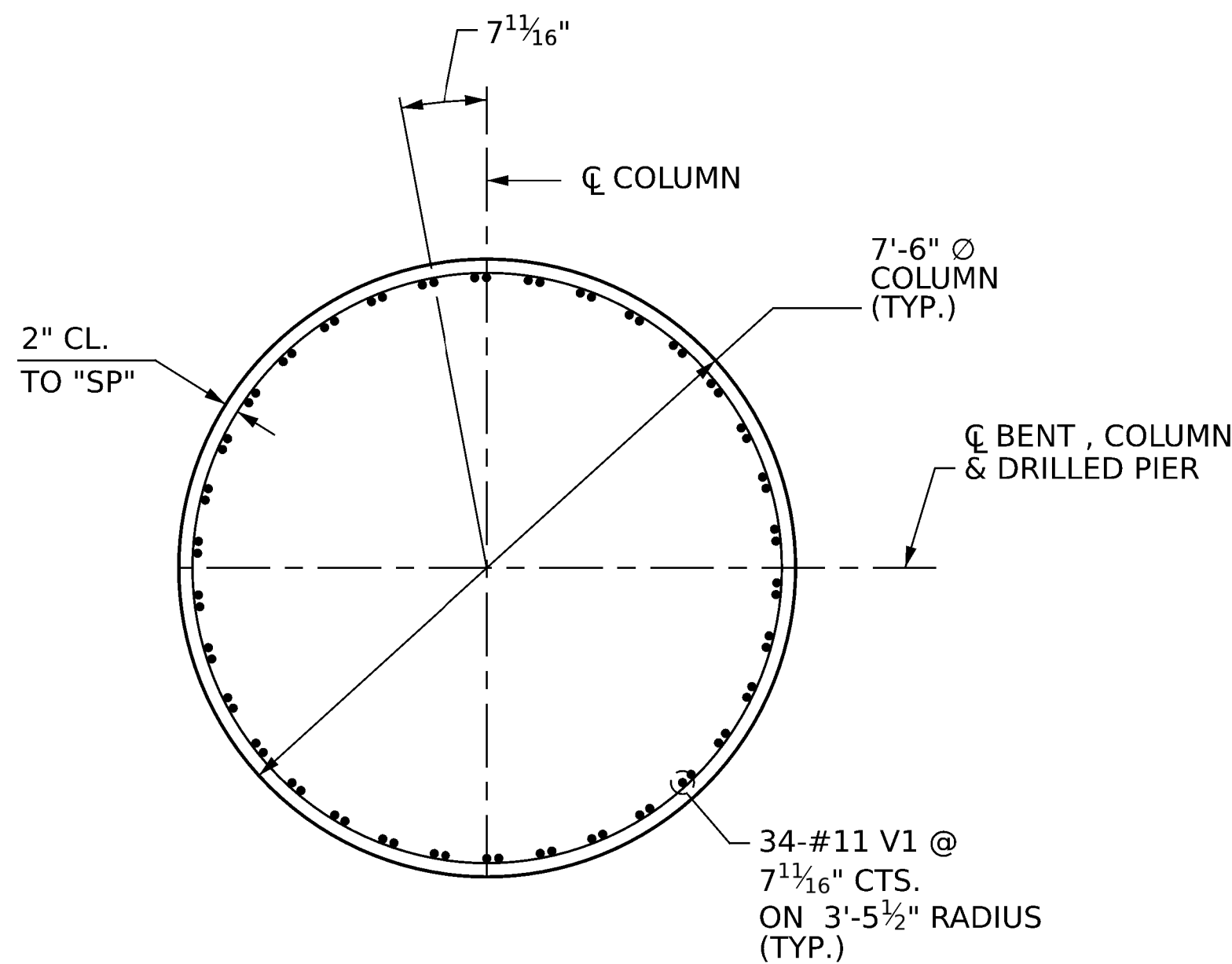
SECTION A-A



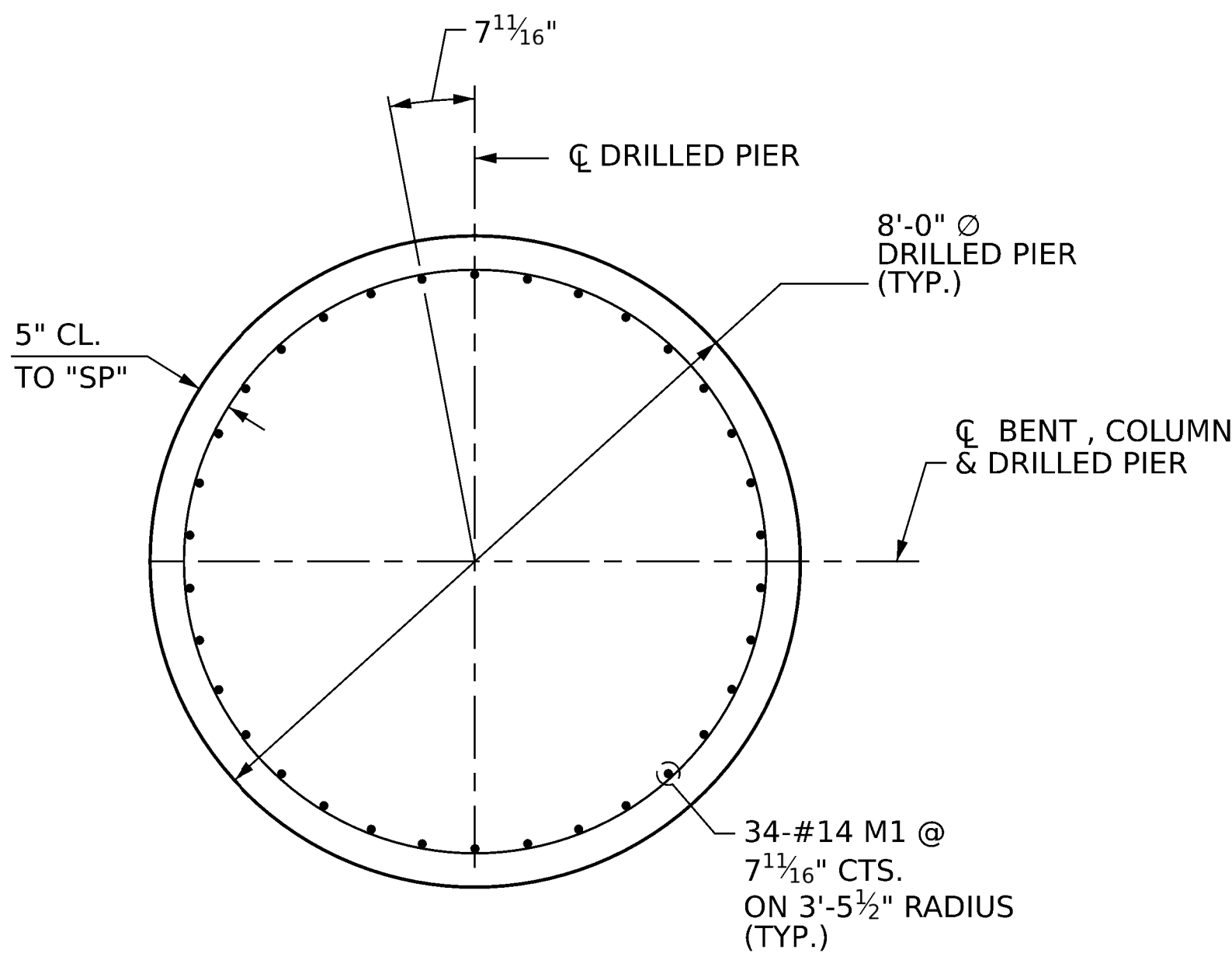
SECTION B-B



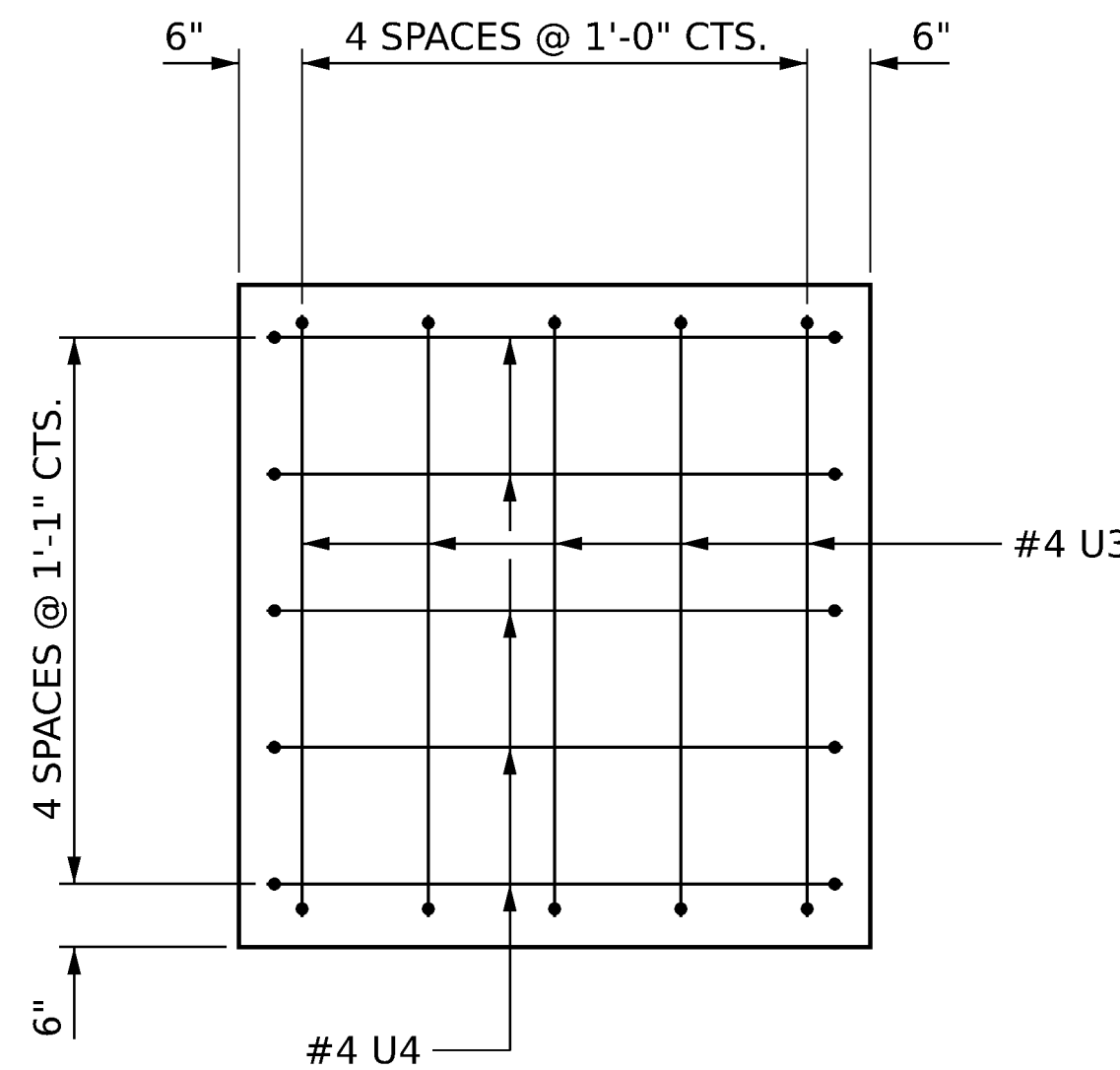
SECTION C-C



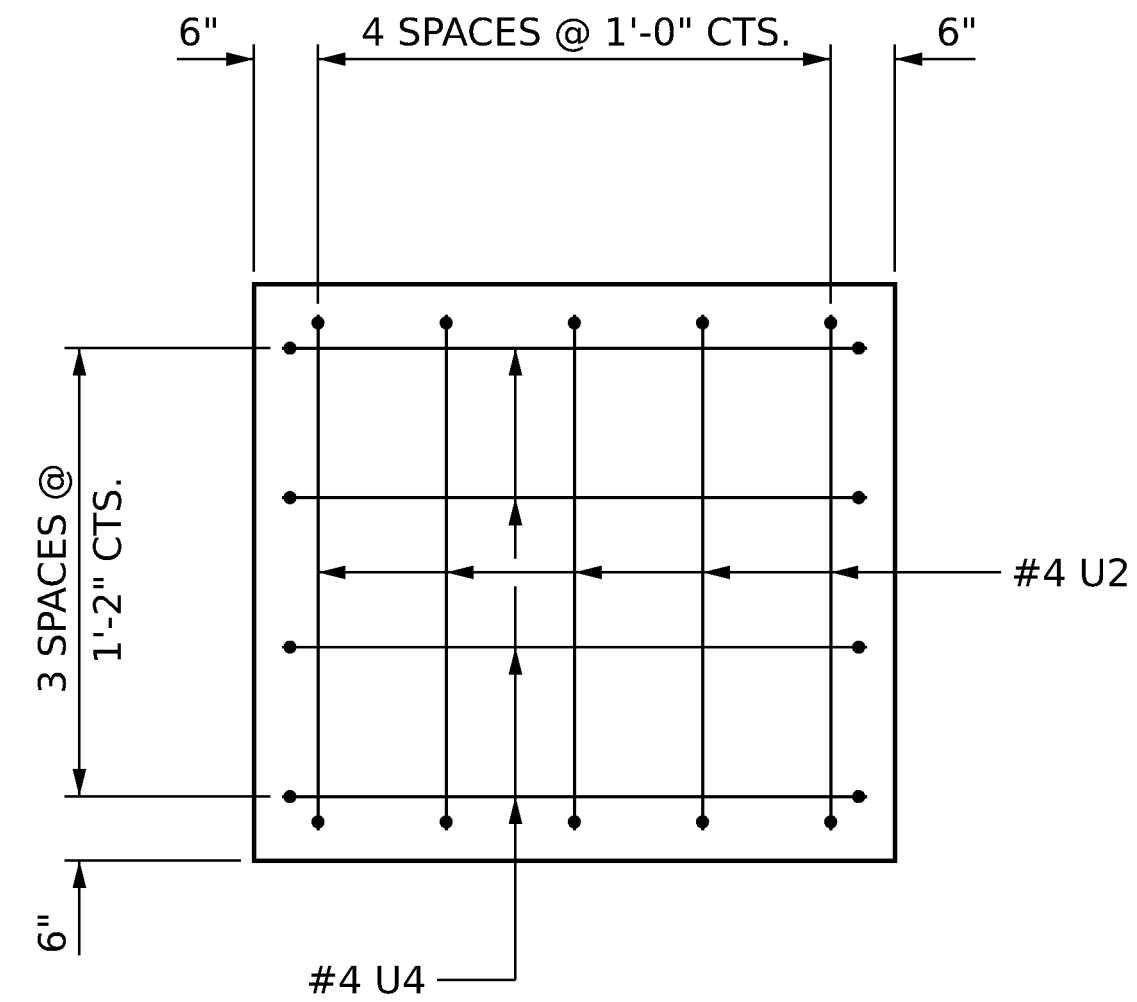
SECTION D-D



SECTION E-E



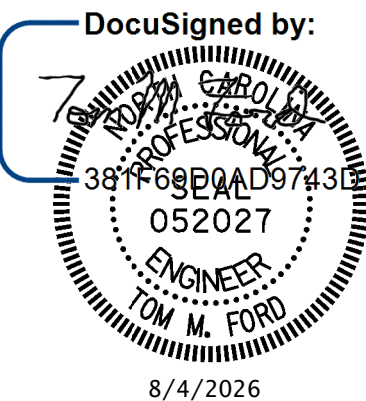
VIEW X-X



VIEW Y-Y

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 3



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 1 AND 2
DETAILS

DRAWN BY : J. MYA DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
TOTAL SHEETS				44	

STR. #2

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A095

dw://gfnrt-pw.bentley.com:gfnrt-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_069_12513AC_SMU_B103_S2-35_100905

8/4/2026 1:09:01 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tbl

NOTES:

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT THE LONGITUDINAL REINFORCEMENT FOR THE DRILLED PIERS IS DETAILED WITH 3 FEET OF EXTRA LENGTH.

ALL STEEL IN THE DRILLED PIERS IS INCLUDED IN THE PAY ITEMS FOR "REINFORCING STEEL" AND "SPIRAL COLUMN REINFORCING STEEL".

STIRRUPS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.

HOOKS ON "V" BARS MAY BE TURNED AS NECESSARY FOR PLACING REINFORCING STEEL.

FOR ADDITIONAL NOTES, SEE "GENERAL DRAWING." SHEET 4 OF 4.

FOR MASS CONCRETE, SEE PROJECT SPECIAL PROVISION.

THE LOCATION OF THE CONSTRUCTION JOINT IN THE DRILLED PIER IS BASED ON AN APPROXIMATE GROUND LINE ELEVATION. IF THE CONSTRUCTION JOINT IS ABOVE THE ACTUAL GROUND LINE ELEVATION, THE CONTRACTOR SHALL PLACE THE CONSTRUCTION JOINT 1 FT. BELOW THE GROUND LINE.

DETAILED DRAWINGS FOR FALSE WORK AND FORMS FOR THIS HAMMERHEAD BENT CAP SHALL BE SUBMITTED, SEE SHEET SN.

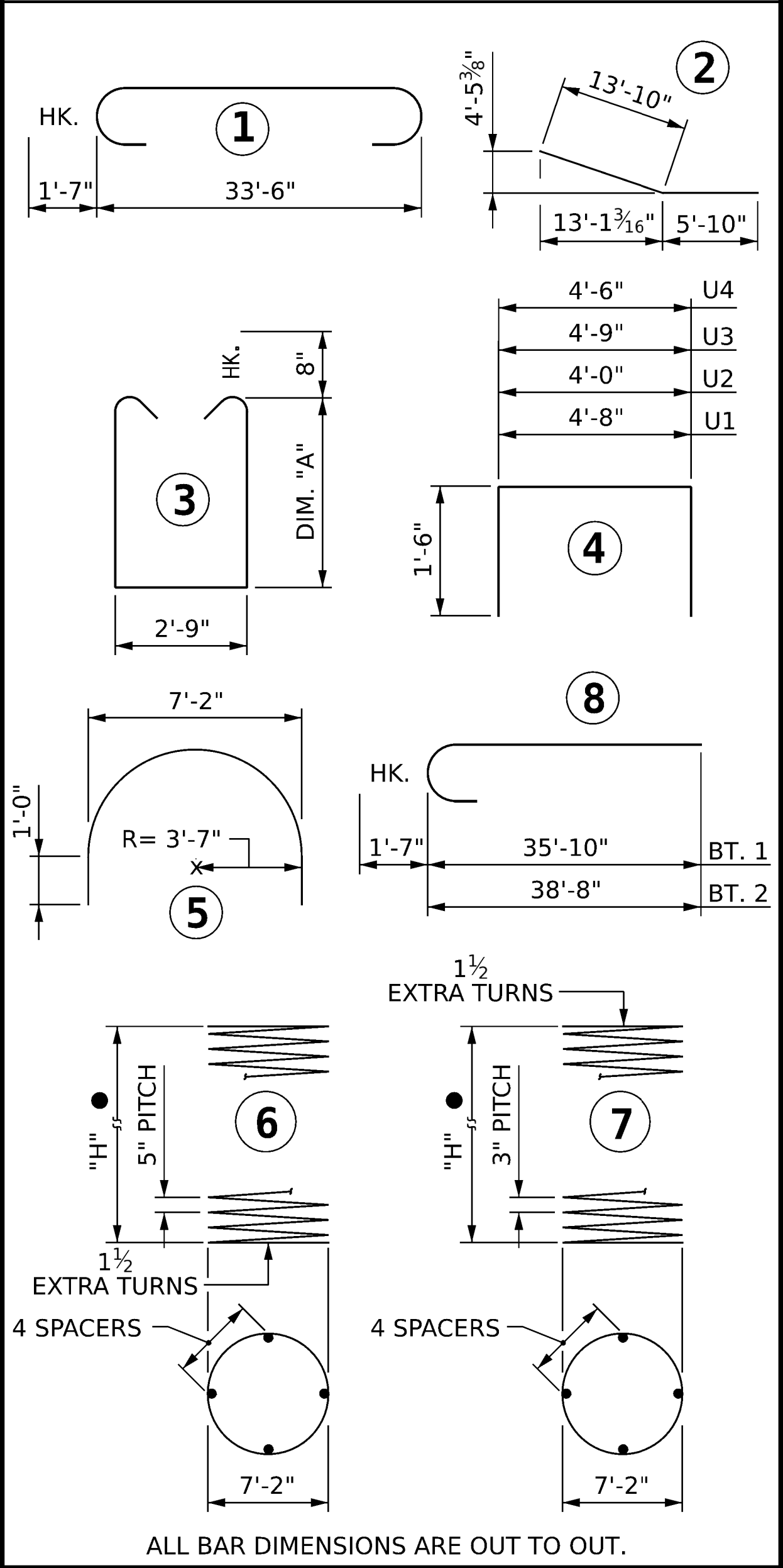
BENT QUANTITIES

BENT QUANTITIES		
BENT	1	2
REINFORCING STEEL	29,064	28,271
SPIRAL REINFORCING STEEL	4,003	3,888
CLASS A CONCRETE : POUR 2 - (COLUMN) CU. YDS.	50.2	54.0
CLASS A CONCRETE : POUR 3 - (CAP) CU. YDS.	49.1	49.1
TOTAL CU. YDS.	99.3	103.1
DRILLED PIER CONCRETE : POUR 1 CU. YDS.	65.2	55.9

TABLE "A"

TABLE "A"			
BENT			
BAR	●	1	2
M1	LENGTH	45'-0"	40'-0"
	WEIGHT	11,705	10,404
V1	LENGTH	37'-5"	40'-3"
	WEIGHT	6,760	7,271
SP-1	"H"	34'-6"	29'-6"
	LENGTH	1,944'-11"	1,676'-8"
	WEIGHT	2,029	1,749
SP-2	"H"	31'-11"	34'-8"
	LENGTH	2,954'-10"	3,201'-1"
	WEIGHT	1,974	2,139

BAR TYPES



BILL OF MATERIAL FOR ONE BENT

BAR	NO.	SIZE	TYPE	DIM. A	LENGTH	WEIGHT
B1	11	#11	1	-	36'-8"	2,143
B2	12	#9	2	-	19'-8"	803
B3	10	#11	STR.	-	33'-8"	1,789
B4	11	#11	STR.	-	13'-2"	770
B5	11	#4	STR.	-	10'-0"	74
B6	11	#4	STR.	-	3'-2"	24
B7	2	#8	STR.	-	11'-11"	64
B8	2	#8	STR.	-	15'-10"	85
B9	2	#8	STR.	-	19'-10"	106
B10	2	#8	STR.	-	23'-9"	127
B11	2	#8	STR.	-	27'-8"	148
B12	2	#8	STR.	-	31'-7"	169
B13	10	#8	STR.	-	33'-8"	899
B14	11	#4	STR.	-	4'-8"	35
M1	34	#14	STR	-	●	●
S1	2	#6	3	4'-3"	12'-7"	38
S2	2	#6	3	4'-6 1/2"	13'-2"	40
S3	2	#6	3	4'-9 1/2"	13'-8"	42
S4	2	#6	3	5'-0 1/2"	14'-2"	43
S5	2	#6	3	5'-3 1/2"	14'-8"	45
S6	2	#6	3	5'-6 1/2"	15'-2"	46
S7	2	#6	3	5'-9 1/2"	15'-8"	48
S8	2	#6	3	6'-0 1/2"	16'-2"	49
S9	2	#6	3	6'-3 1/2"	16'-8"	51
S10	2	#6	3	6'-7"	17'-3"	52
S11	2	#6	3	6'-10"	17'-9"	54
S12	2	#6	3	7'-1"	18'-3"	55
S13	2	#6	3	7'-4"	18'-9"	57
S14	2	#6	3	7'-5 1/2"	19'-0"	58
S15	2	#6	3	7'-7 1/2"	19'-4"	59
S16	2	#6	3	7'-9"	19'-7"	59
S17	2	#6	3	7'-10 1/2"	19'-10"	60
S18	2	#6	3	8'-0 1/2"	20'-2"	61
S19	2	#6	3	8'-2"	20'-5"	62

BILL OF MATERIAL FOR ONE BENT

BAR	NO.	SIZE	TYPE	DIM. A	LENGTH	WEIGHT
S20	2	#6	3	8'-4"	20'-9"	63
S21	2	#6	3	8'-5 1/2"	21'-0"	64
S22	20	#6	3	8'-7"	21'-3"	639
S23	2	#6	3	4'-9"	13'-7"	41
S24	2	#6	3	5'-0 1/2"	14'-2"	43
S25	2	#6	3	5'-3 1/2"	14'-8"	45
S26	2	#6	3	5'-6 1/2"	15'-2"	46
S27	2	#6	3	5'-9 1/2"	15'-8"	48
S28	2	#6	3	6'-0 1/2"	16'-2"	49
S29	2	#6	3	6'-3 1/2"	16'-8"	51
S30	2	#6	3	6'-6 1/2"	17'-2"	52
S31	2	#6	3	6'-9 1/2"	17'-8"	54
S32	2	#6	3	7'-1"	18'-3"	55
S33	2	#6	3	7'-4"	18'-9"	57
S34	2	#6	3	7'-7"	19'-3"	58
S35	2	#6	3	7'-10"	19'-9"	60
S36	2	#6	3	7'-11 1/2"	20'-0"	61
S37	2	#6	3	8'-1 1/2"	20'-4"	62
S38	2	#6	3	8'-3"	20'-7"	62
S39	2	#6	3	8'-4 1/2"	20'-10"	63
S40	2	#6	3	8'-6 1/2"	21'-2"	64
S41	2	#6	3	8'-8"	21'-5"	65
S42	2	#6	3	8'-10"	21'-9"	66
S43	2	#6	3	8'-11 1/2"	22'-0"	67
S44	2	#6	3	9'-1"	22'-3"	67
S45	16	#4	5	-	13'-3"	142
U1	28	#4	4	-	7'-8"	144
U2	5	#4	4	-	7'-0"	24
U3	5	#4	4	-	7'-9"	26
U4	9	#4	4	-	7'-6"	46
V1	34	#11	8	-	●	●
SP-1	1	*	6	-	●	●
SP-2	1	**	7	-	●	●

* THE SP-1 SPIRAL REINFORCING STEEL SHALL BE W20 OR D-20 COLD DRAWN WIRE OR #5 PLAIN OR DEFORMED BAR.

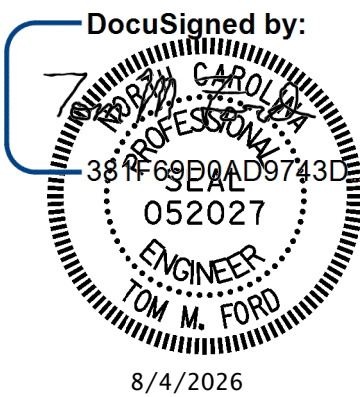
** THE SP-2 SPIRAL REINFORCING STEEL SHALL BE W31 OR D-31 COLD DRAWN WIRE OR #4 PLAIN OR DEFORMED BAR.

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 3 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
BENT 1 AND 2
BILL OF MATERIAL



DRAWN BY : J. MYA DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

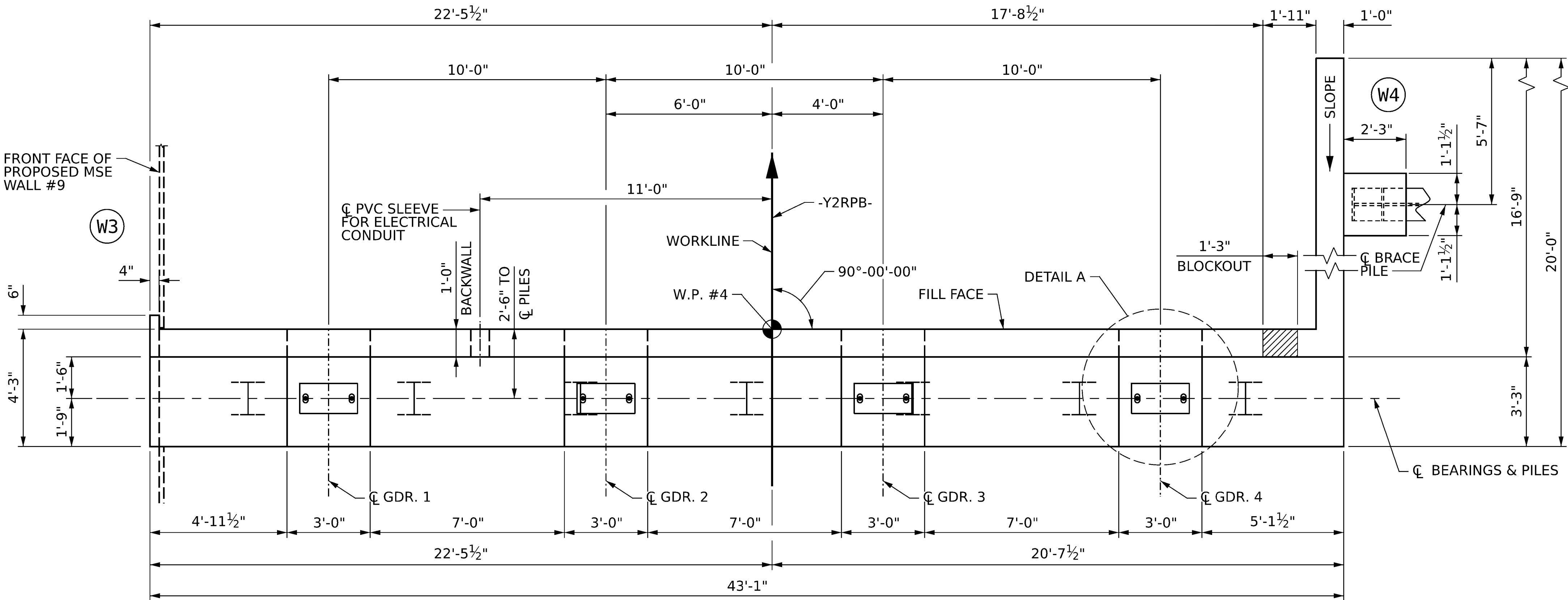


GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

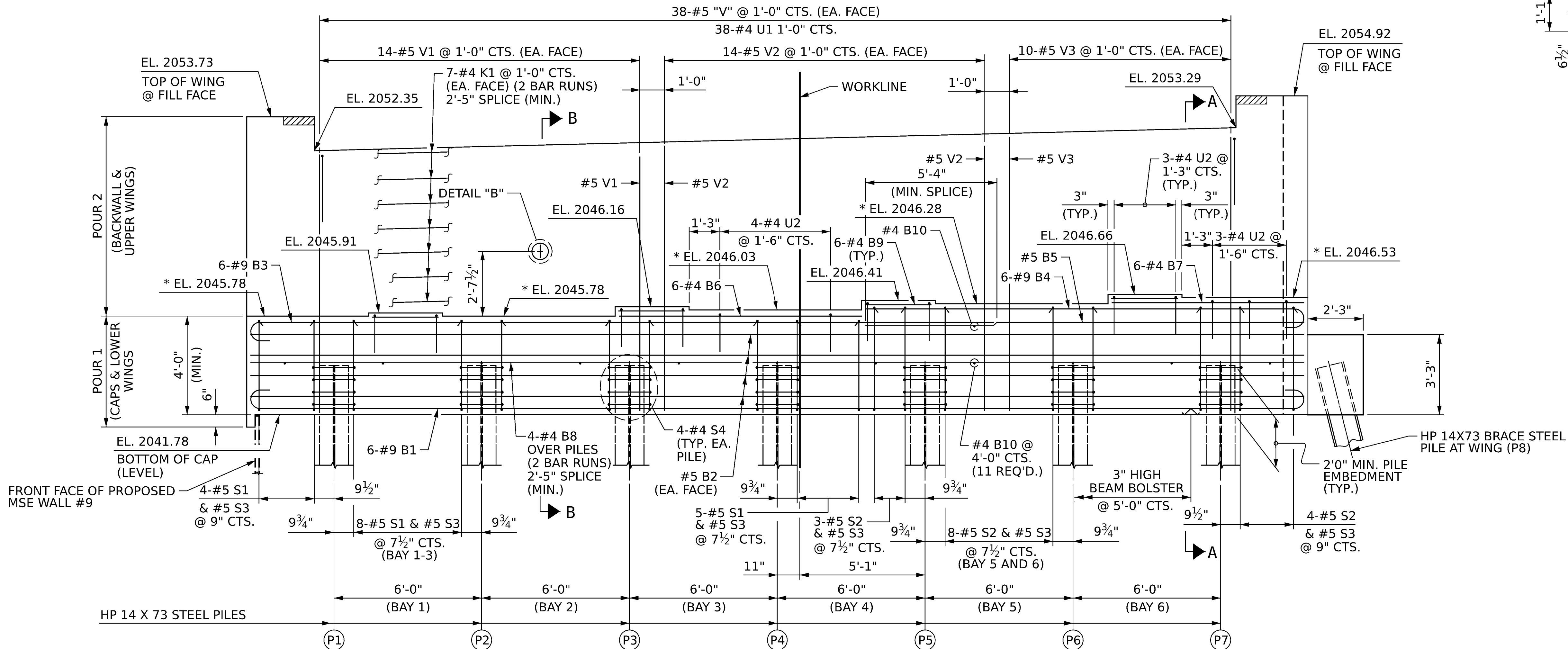
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
					TOTAL SHEETS
					44

STR. #2



PLAN



ELEVATION

NOTES:

STIRRUPS AND U2 BARS IN CAP MAY BE SHIFTED AS NECESSARY TO CLEAR ANCHOR BOLTS.

#5 "V" BARS IN BACKWALL SHALL BE PLACED 2" CLEAR FROM THE TOP OF BACKWALL.

FOR PILE SPLICE DETAILS, SEE SHEET 3 OF 3.

BACKWALL SHALL BE PLACED BEFORE APPLYING THE EPOXY PROTECTIVE COATING.

THE TOP SURFACE AREAS OF THE END BENT CAPS SHALL BE CURED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS EXCEPT THE MEMBRANE CURING COMPOUND METHOD SHALL NOT BE USED.

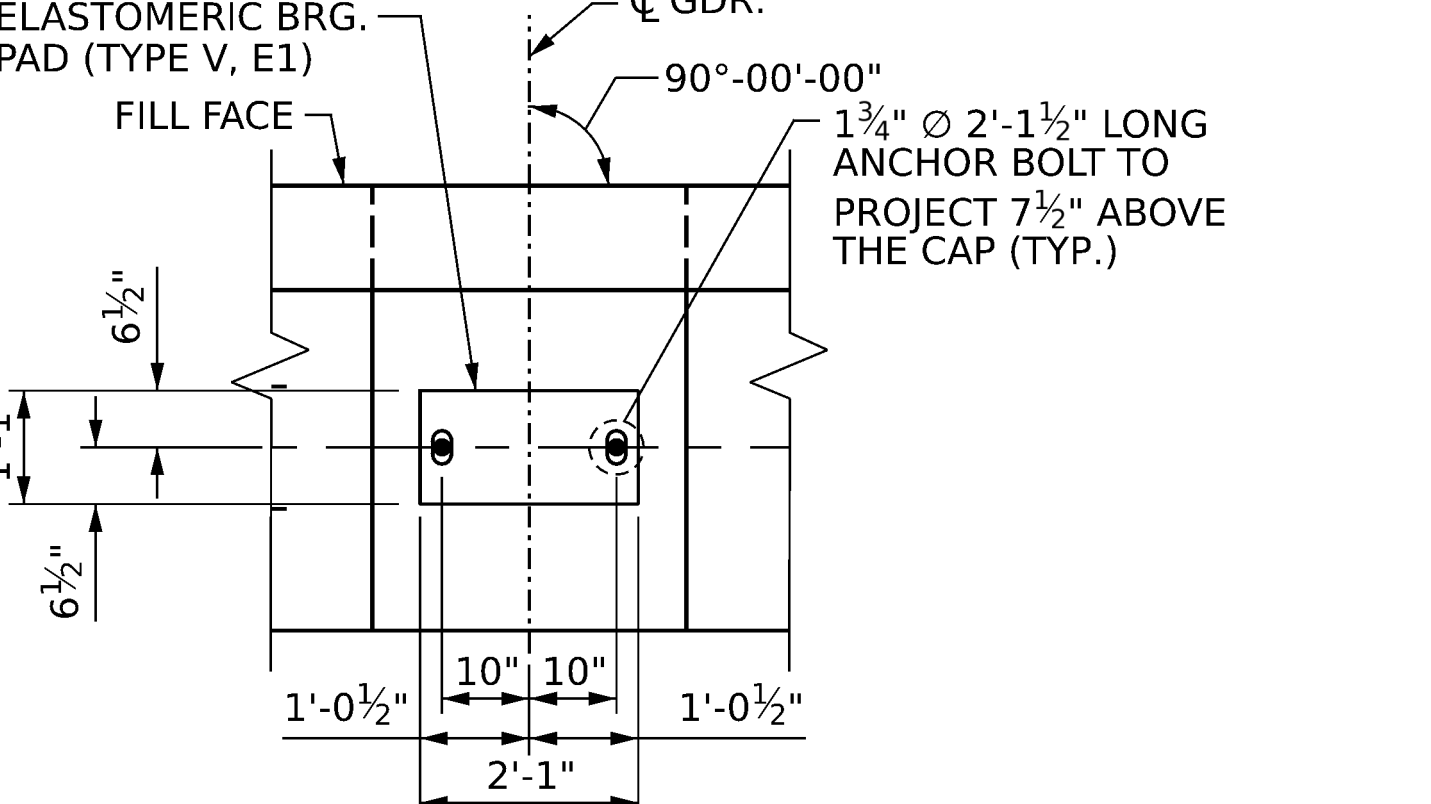
* THE TOP SURFACE OF THE END BENT CAP EXCEPT THE BRIDGE SEAT BUILDUPS SHALL BE SLOPED TRANSVERSELY FROM THE FILL FACE TO THE BACK FACE AT THE RATE OF 2%.

THE CONCRETE IN THE SHADED AREA OF THE WING SHALL BE POURED AFTER THE JOINT BETWEEN THE DECK AND THE APPROACH SLAB HAS BEEN SAWED AND THE BARRIER RAILS ARECAST IF SLIP FORMING IS USED.

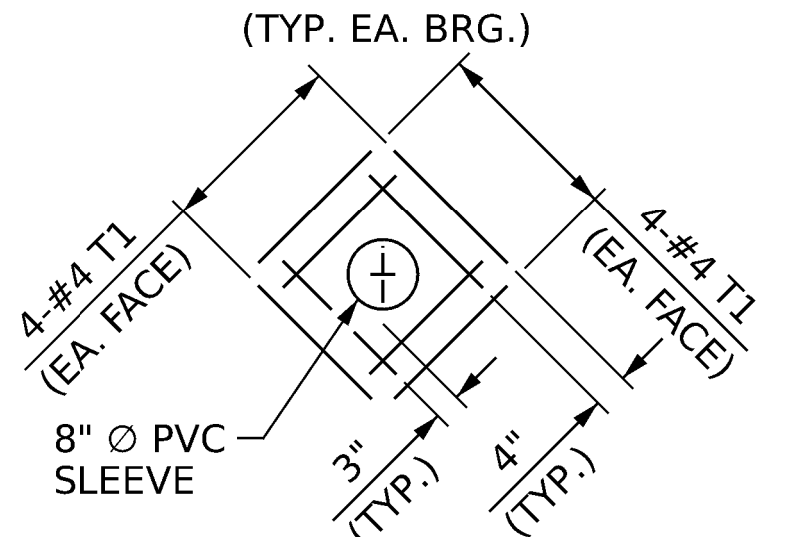
SEE PLANS AND SPECIAL PROVISIONS TITLED "ELECTRICAL CONDUIT SYSTEM". "V" BARS MAY BE SHIFTED AS NECESSARY TO CLEAR OPENING. "K" BARS MAY BE CUT IN THE FIELD AS NECESSARY TO CLEAR OPENING.

FOR PIPE INSERT DETAILS, SEE BEARING SHEETS.

EPOXY COAT THE END BENT CAP AFTER ADJUSTMENTS ARE MADE TO BEARINGS AND ANCHOR BOLTS ARE GROUTED.



DETAIL A



DETAIL B

PROJECT NO. **I-2513AC**

BUNCOMBE COUNTY

STATION: **19+17.50 -Y2RPB-**

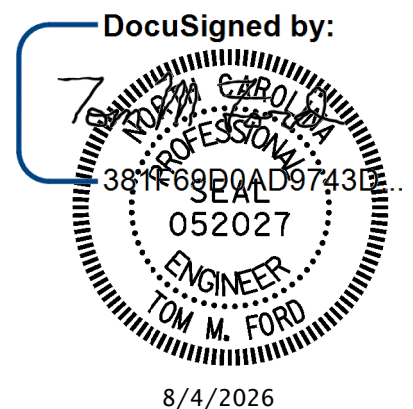
SHEET 1 OF 3

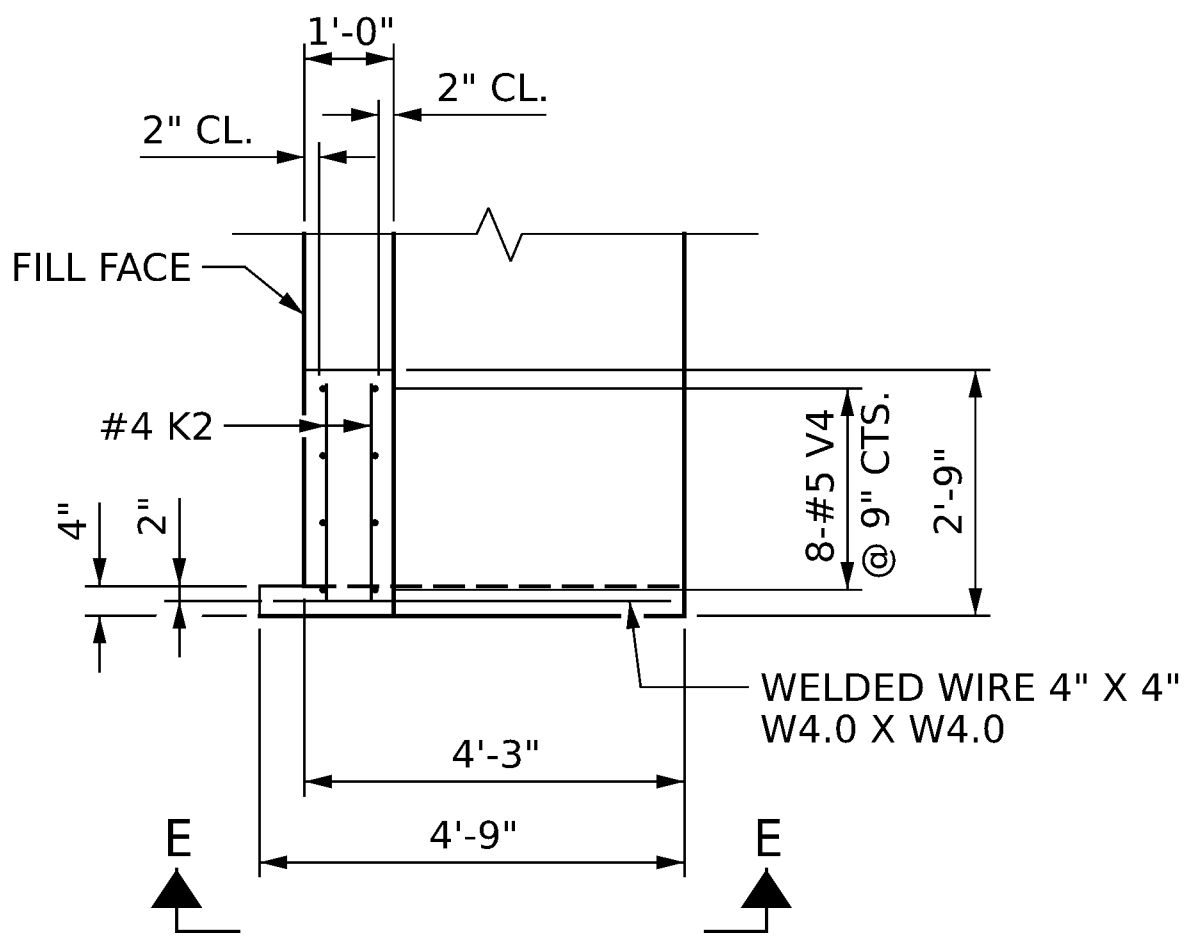
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			TOTAL SHEETS
2			4			
STR. #2						44

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

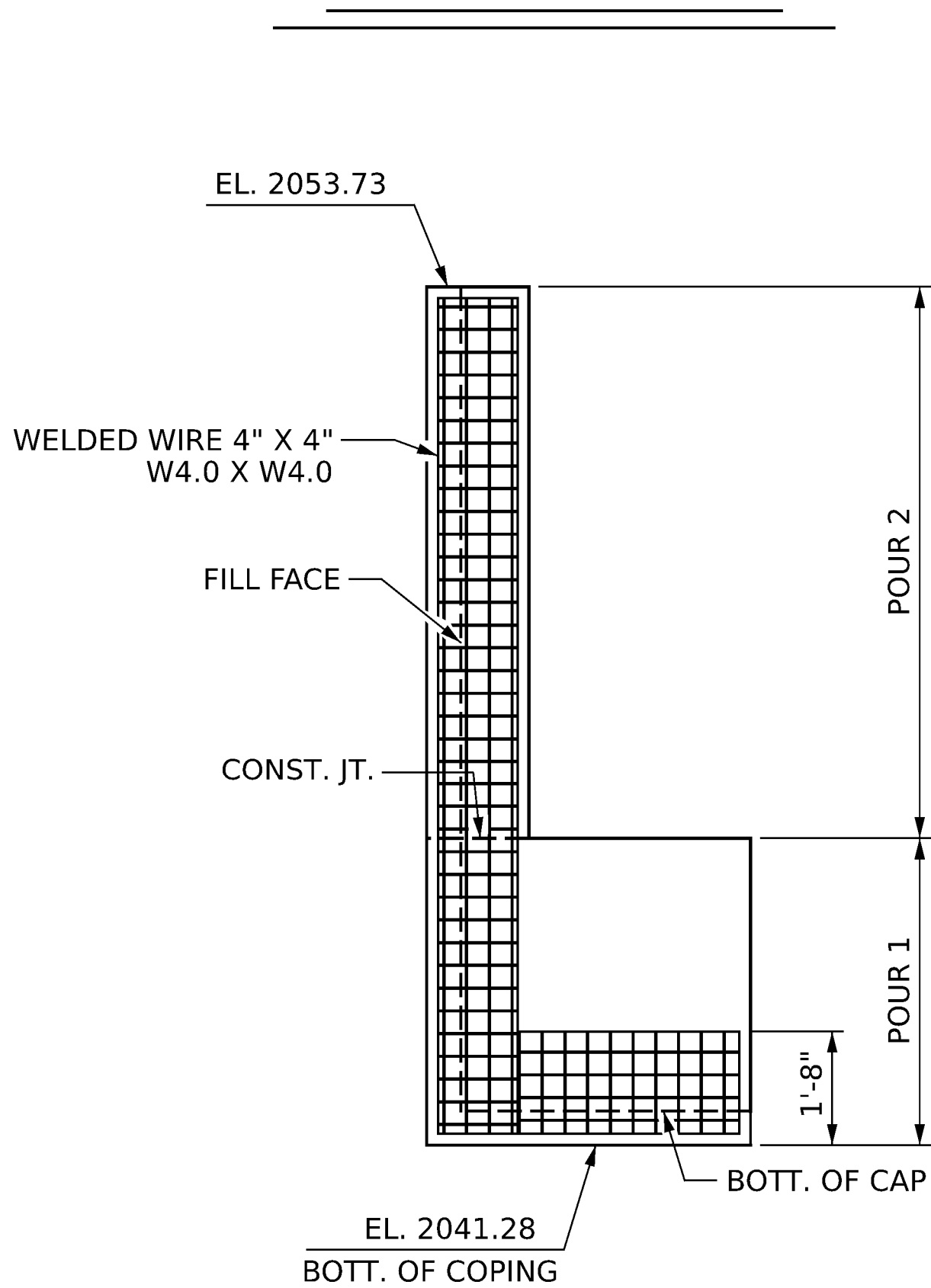


GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

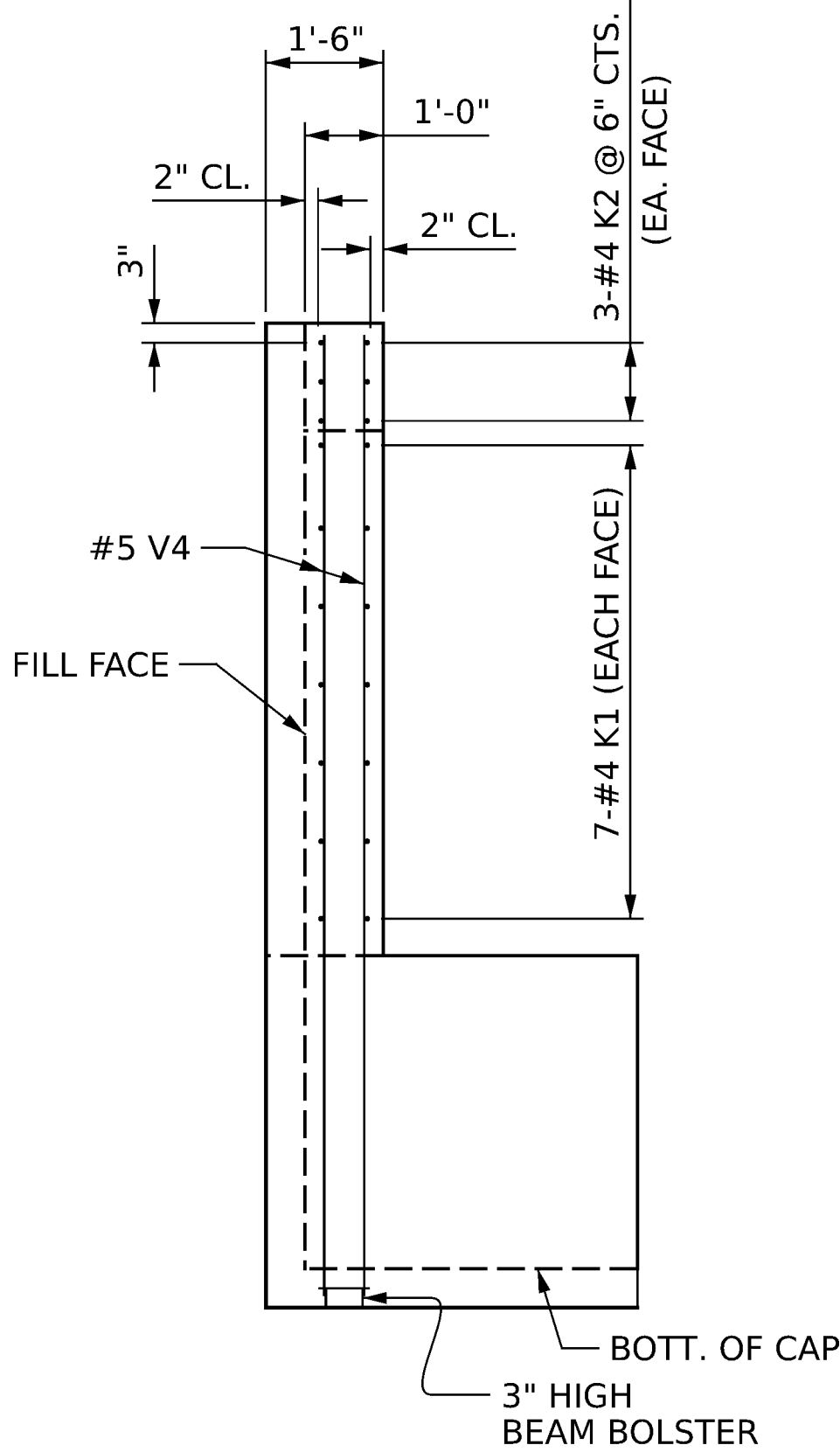




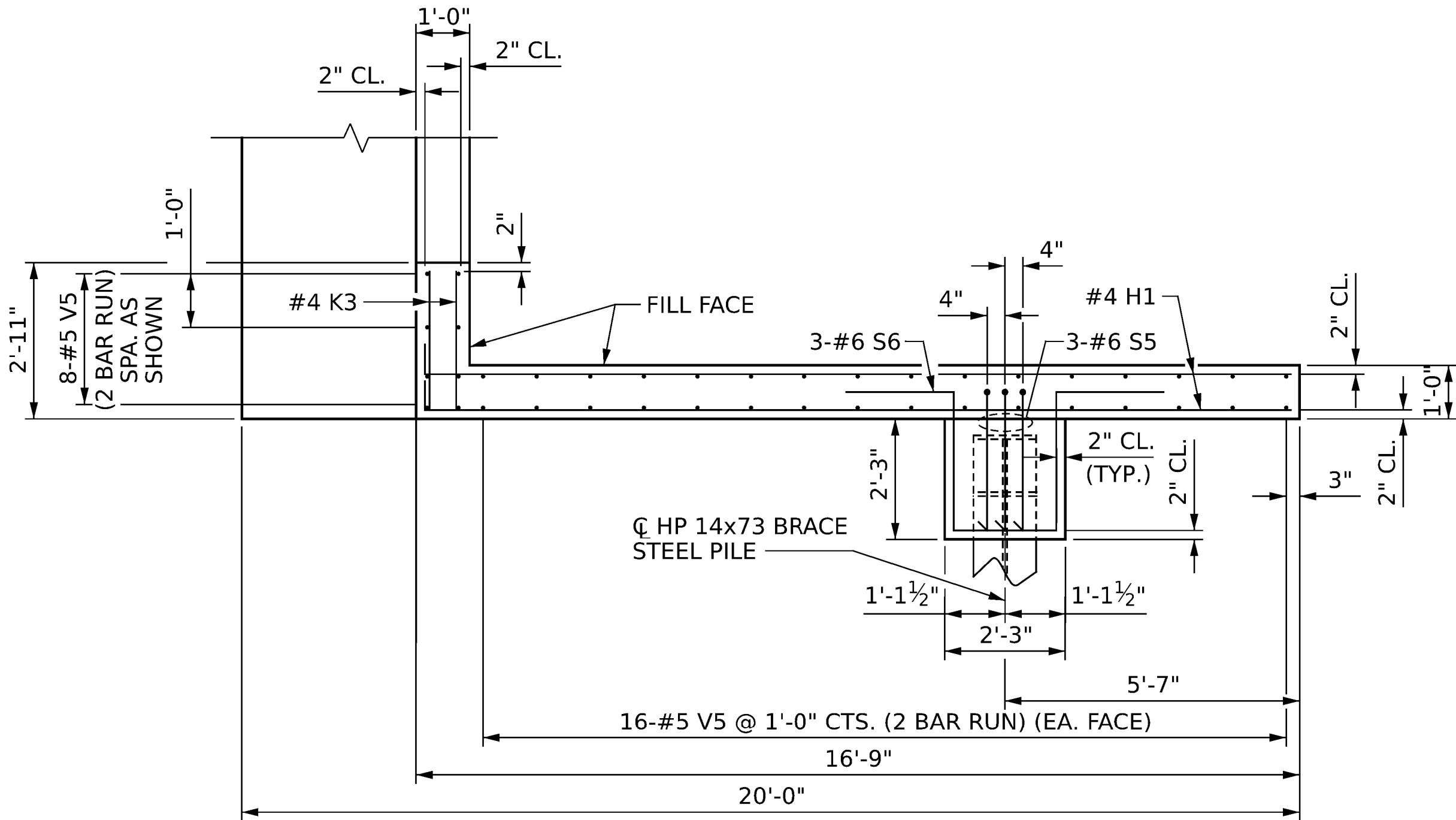
PLAN OF WING W3



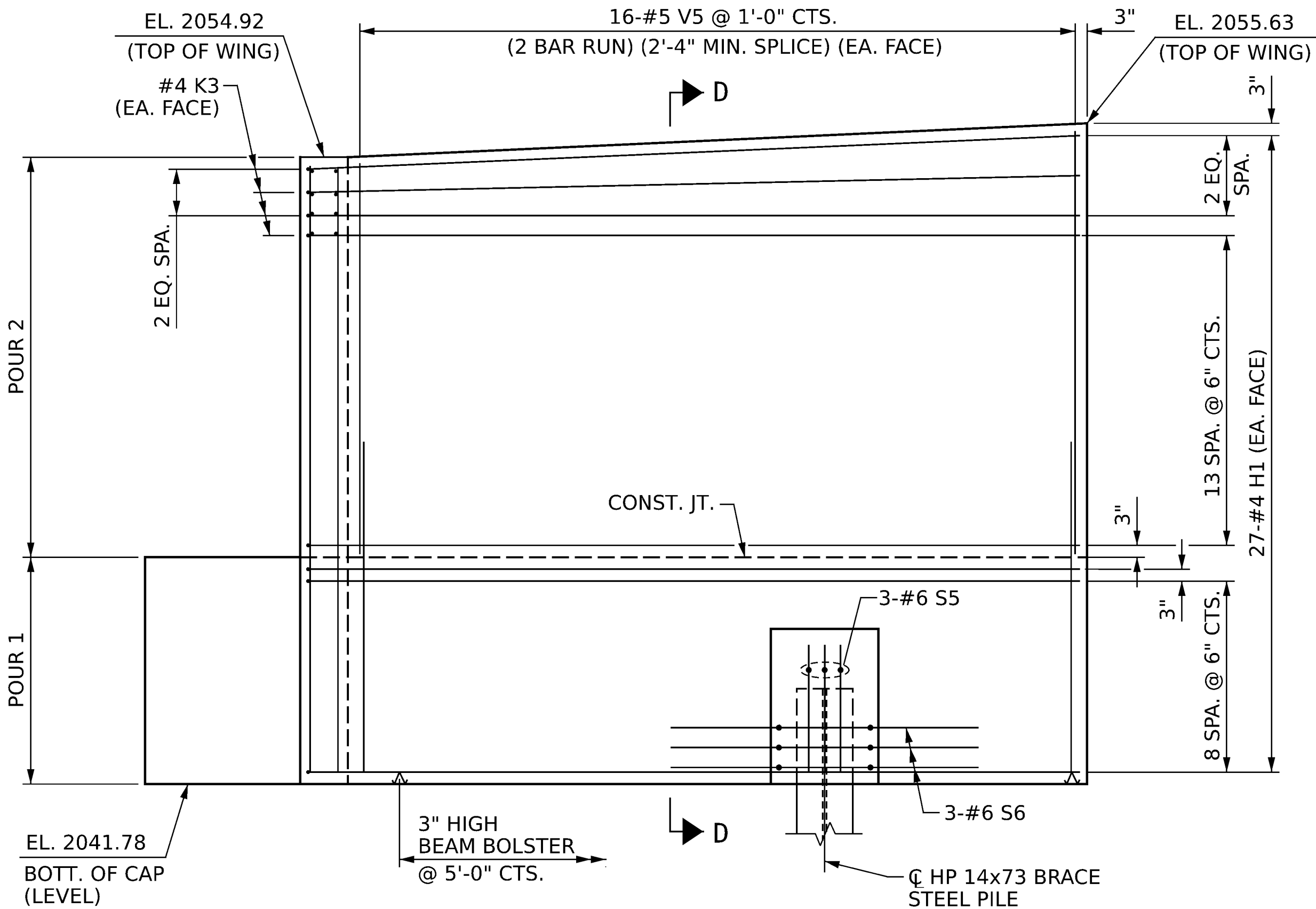
VIEW E-E



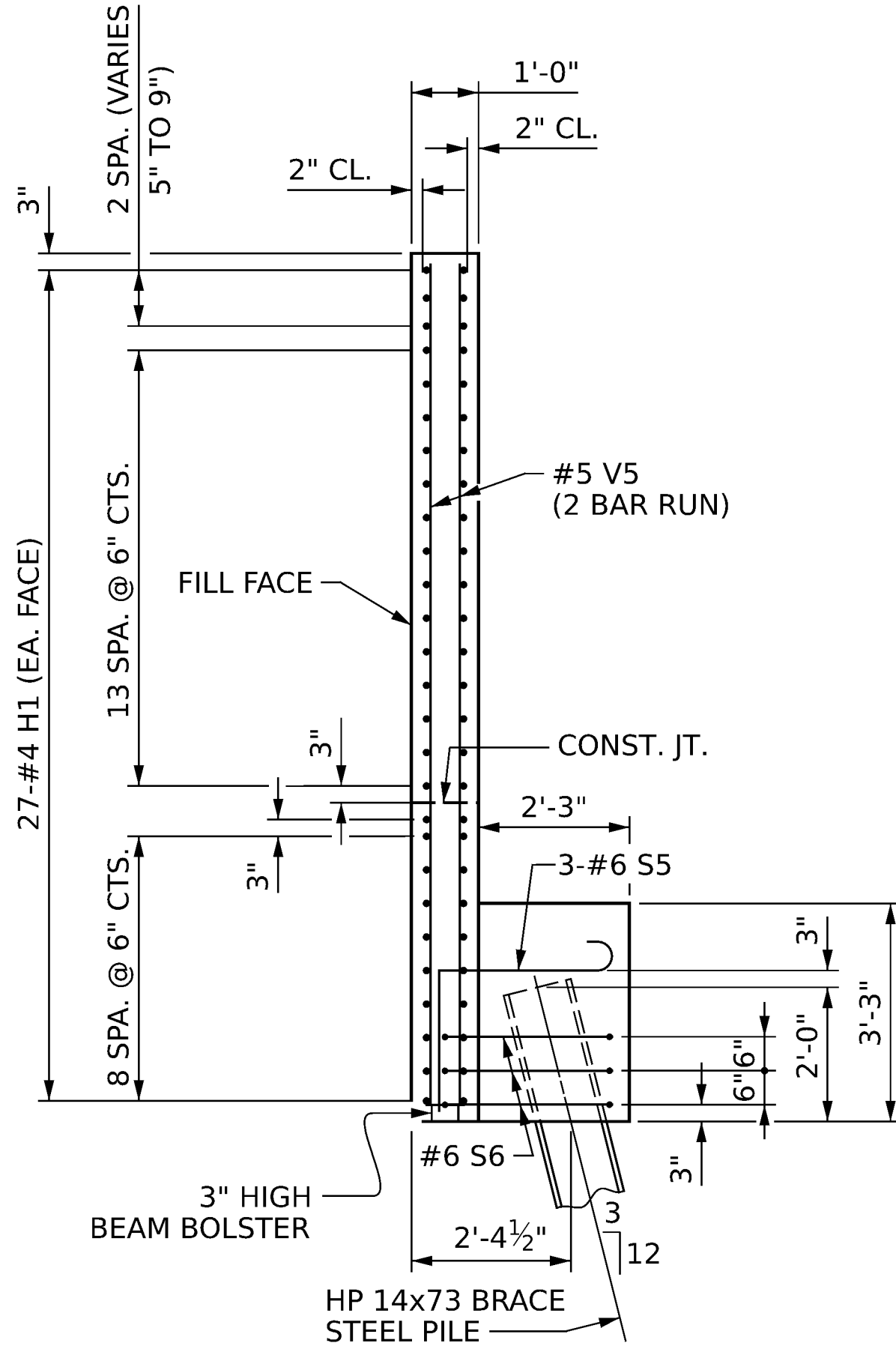
ELEVATION OF WING W3



PLAN OF WING W4



ELEVATION OF WING W4



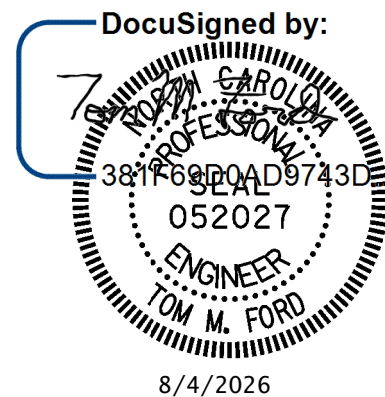
SECTION D-D

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
END BENT 2
DETAILS



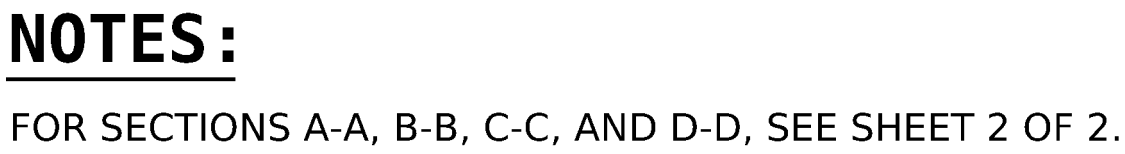
DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S2-37
2			4			
TOTAL SHEETS						44

STR. #2



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270



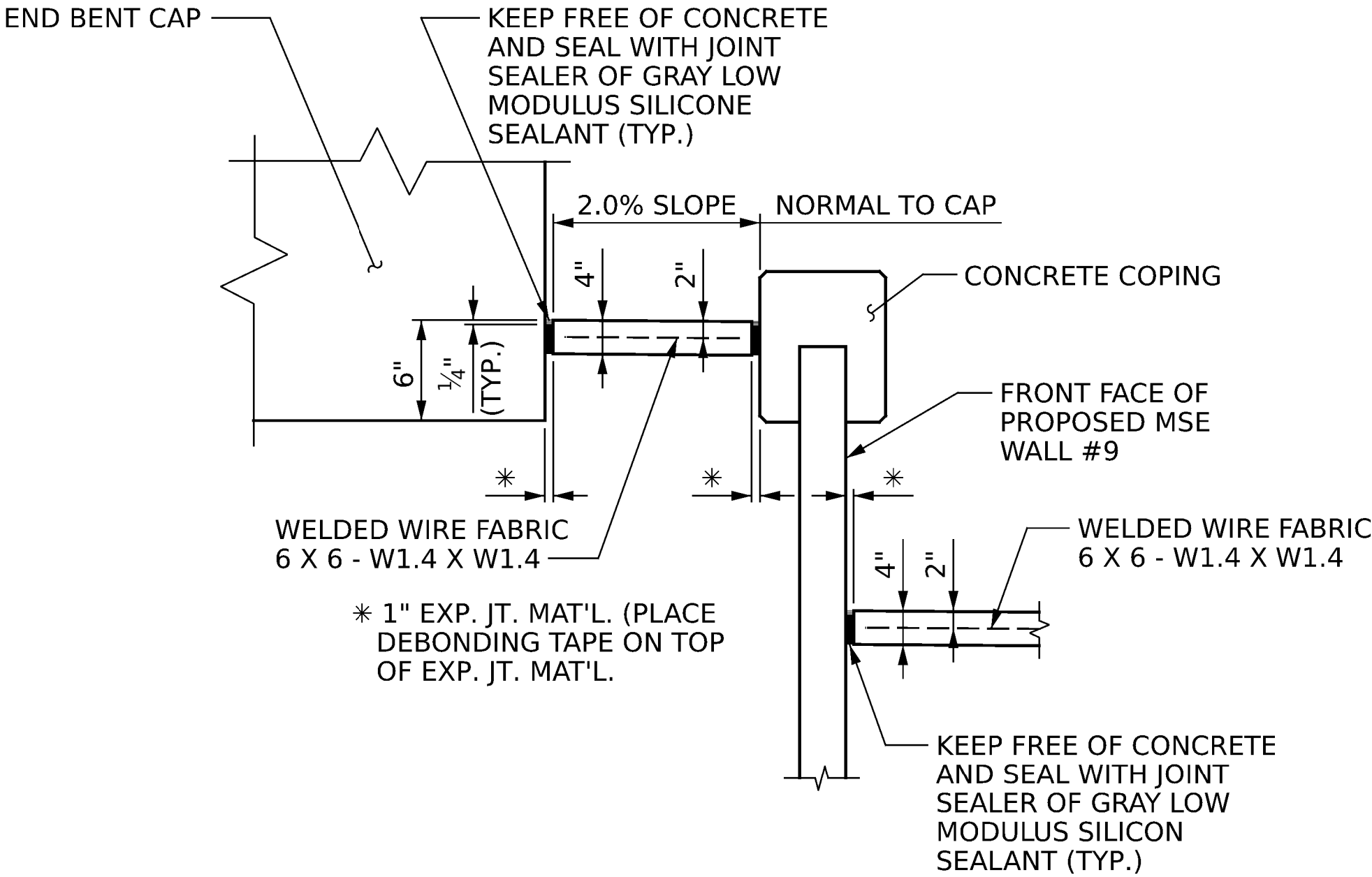
GFT *GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270*

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

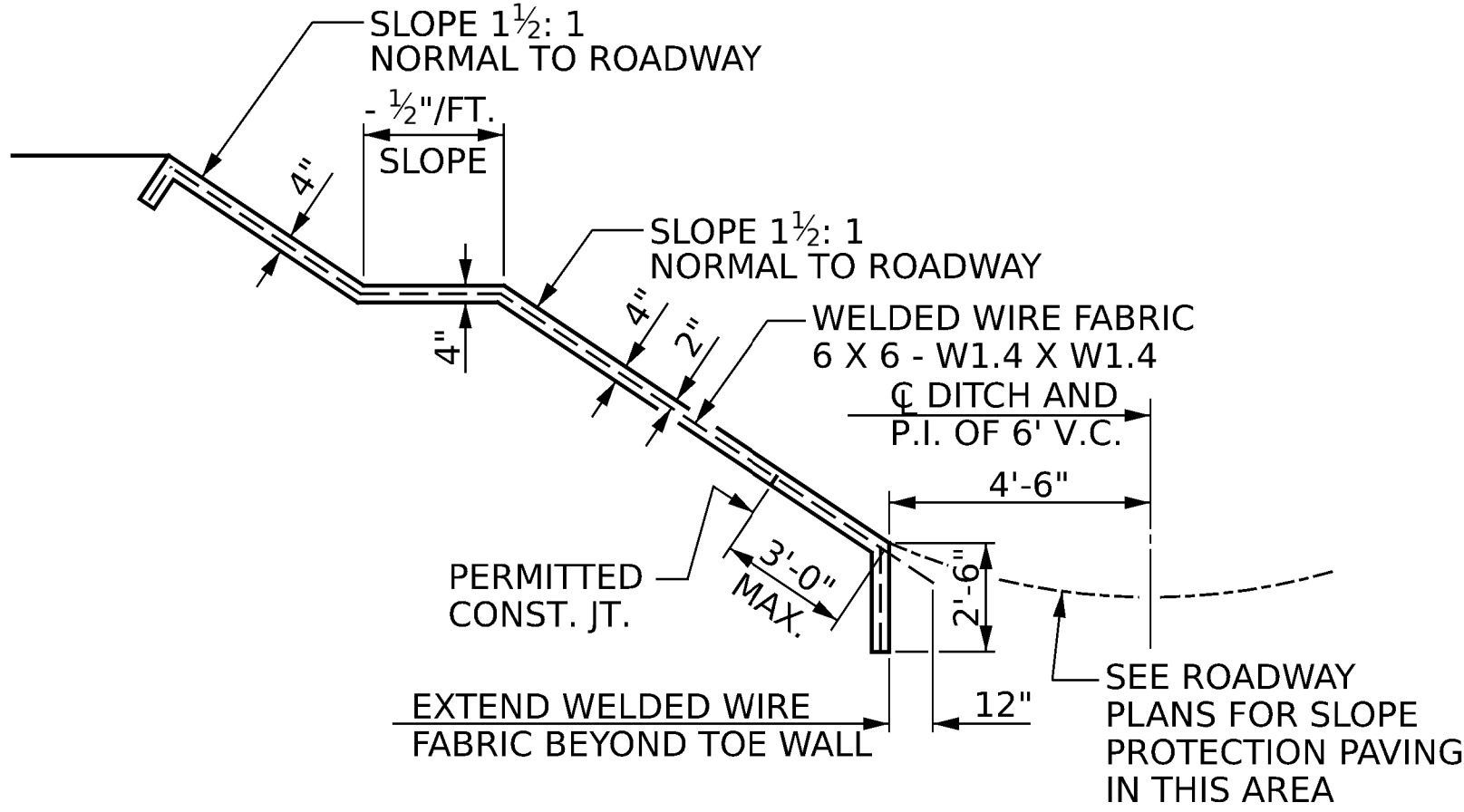
STR. #2

DocuSign Envelope ID: 2B6EC2A6-E0AF-817C-82A3-BBAC4191A0B5

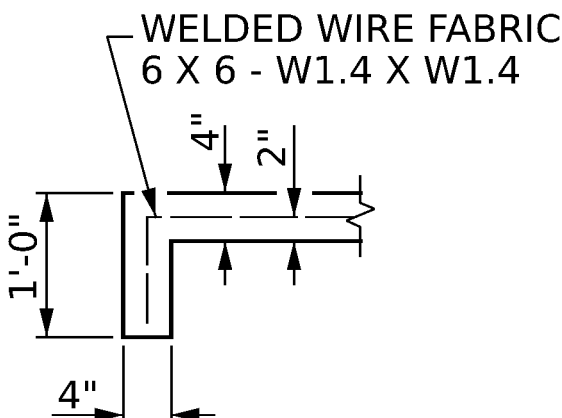
dw://gfnrt-pw.bentley.com:gfnrt-pw-01/0documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 FinalPlans/402_079_I2513AP_SWL_SP02_S2-40_100905
8/4/2026 1:10:26 PM pdf_color_gfclt_F.S.plt Hominy-1-12-26.tbl



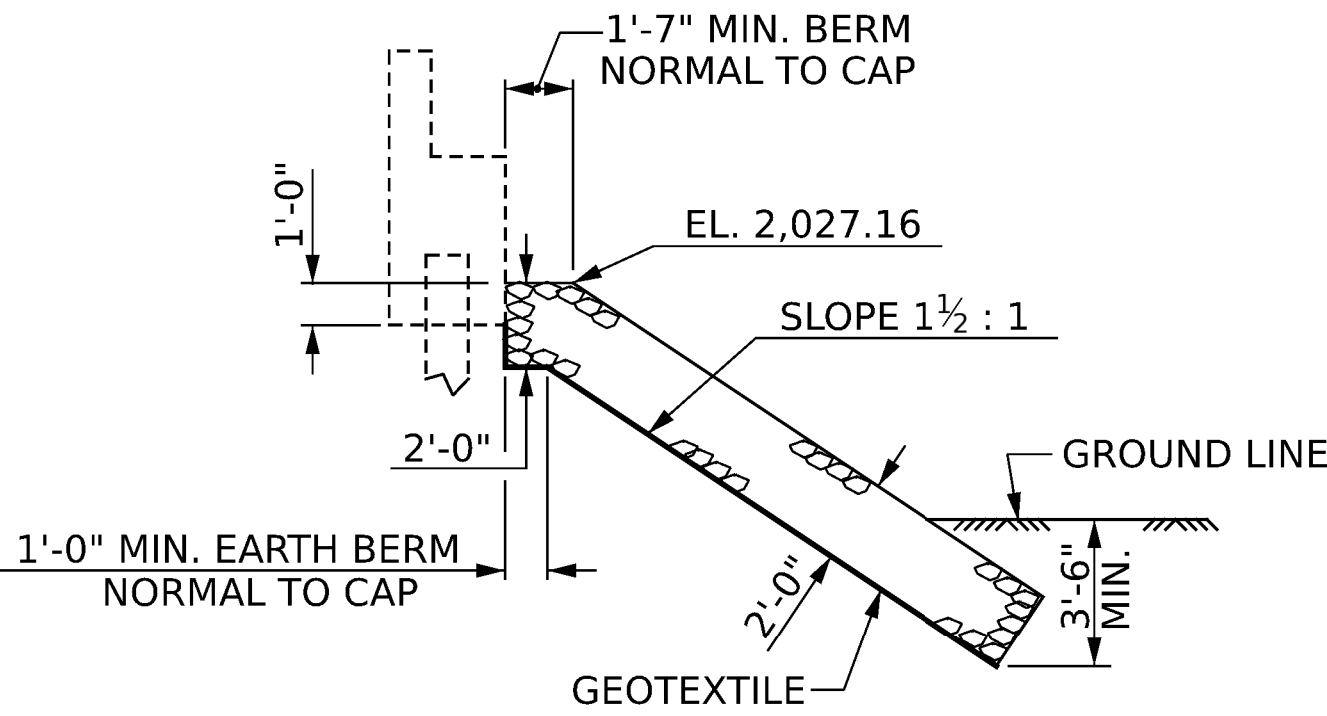
SECTION A-A



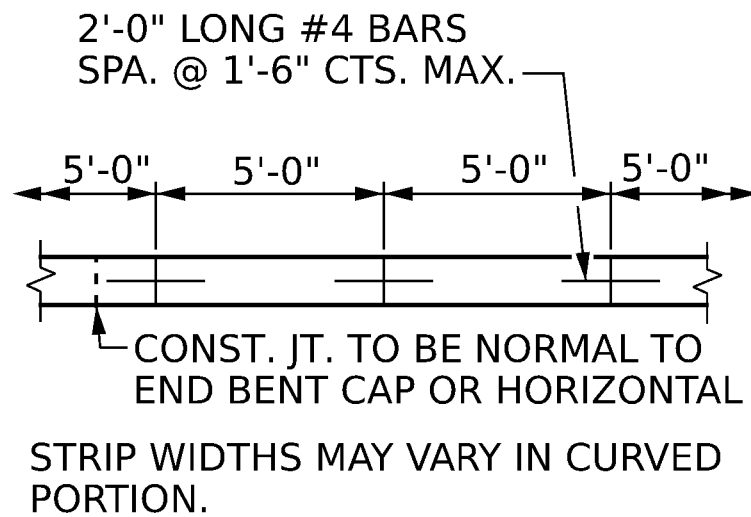
SECTION C-C



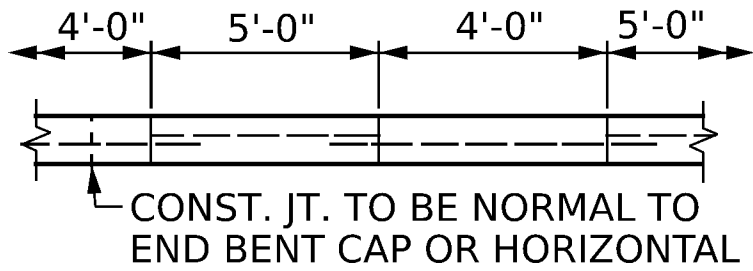
SECTION D-D



SECTION B-B



POURING DETAIL



OPTIONAL POURING DETAIL

THE "POURING DETAIL" SHALL BE USED TO CONNECT SLOPE PROTECTION PORTIONS BETWEEN BRIDGES 2, 3, 4, AND 5. THE #4 BAR DOWELS SHALL BE INSTALLED WITH THE PORTION OF SLOPE PROTECTION CAST FIRST.

NOTES:

SLOPE PROTECTION SHALL BE PLACED UNDER THE BRIDGE AT END BENT 2 AS SHOWN IN THE DETAILS. MEASUREMENT AND PAYMENT SHALL BE AS PRESCRIBED IN SECTION 462 OF THE STANDARD SPECIFICATIONS. FOR BERM WIDTHS, SEE SHEET 1 OF 2.

SLOPE PROTECTION SHALL CONSIST OF 4" POURED-IN-PLACE CONCRETE PAVING AS SHOWN IN THE DETAILS ON THIS SHEET. CONCRETE SHALL BE CLASS "B". THE CONCRETE SURFACE SHALL BE FINISHED TO THE SATISFACTION OF THE ENGINEER. WELDED WIRE FABRIC REINFORCING SHALL BE 6 X 6 -W1.4 X W1.4, 60" WIDE. SLOPE PROTECTION SHALL BE POURED IN 5' STRIPS AS SHOWN IN THE "POURING DETAIL" WITH 2'-0" LONG #4 BARS PLACED ALONG THE SLOPE BETWEEN STRIPS AT 1'-6" MAXIMUM SPACING. SLOPE PROTECTION MAY BE POURED IN ALTERNATE 4' AND 5' STRIPS AS SHOW THE "OPTIONAL POURING DETAIL" WITH ADJACENT RUNS OF WELDED WIRE FABRIC LAPPING AT LEAST 6".

THE COST OF THE WELDED WIRE FABRIC AND #4 BARS SHALL BE INCLUDED IN THE CONTRACT UNIT BID PER SQUARE YARD FOR SLOPE PROTECTION.

COORDINATE GRADING REQUIREMENTS WITH ROADWAY CROSS SECTIONS AND WALL NO. 9 ENVELOPE.

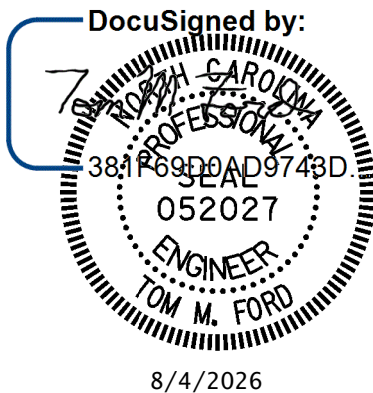
BRIDGE @ 19+17.50 -Y2RPB-	RIP RAP CLASS II (2'-0" THICK)	GEOTEXTILE FOR DRAINAGE
	TONS	SQUARE YARDS
END BENT 1	86	95

BRIDGE @ 19+17.50 -Y2RPB-	4 INCH SLOPE PROTECTION	* WELDED WIRE FABRIC 60 INCHES WIDE
	SQUARE YARDS	APPROX. L.F.
END BENT 2	251	500

* QUANTITY SHOWN IS BASED ON 5' POURS.

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 2 OF 2



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
**RIP RAP &
SLOPE PROTECTION
DETAILS**

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS				SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
				TOTAL SHEETS	44

STR. #2

DocuSign Envelope ID: 2B6EC2A8-E0AF-817C-82A3-BBAC4191A095

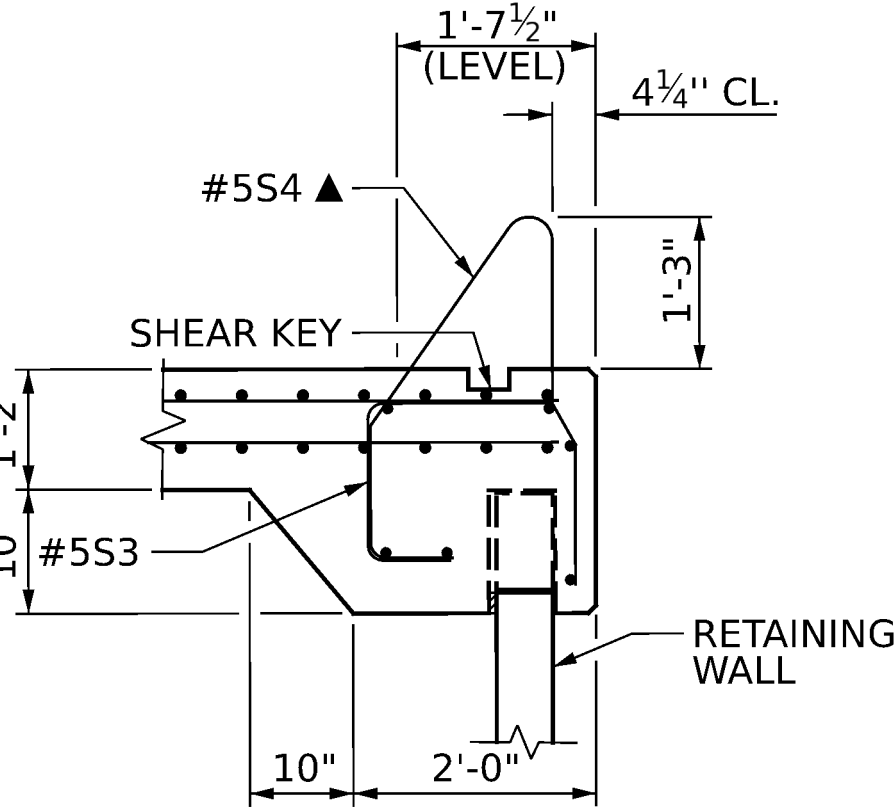
pw://gfnct-pw.bentley.com/gfnct-pw-01/Documents/Projects/68347/5-Working/Task 002 - I-2513AC Final/Structures/CAD/2.0 Final/Plans/402_081_I2513AC_SMU_ASI_S2-41_100905

8/4/2026 1:10:40 PM pdf_color_gfct.fs.plt Hominy_1-12-26.tbl

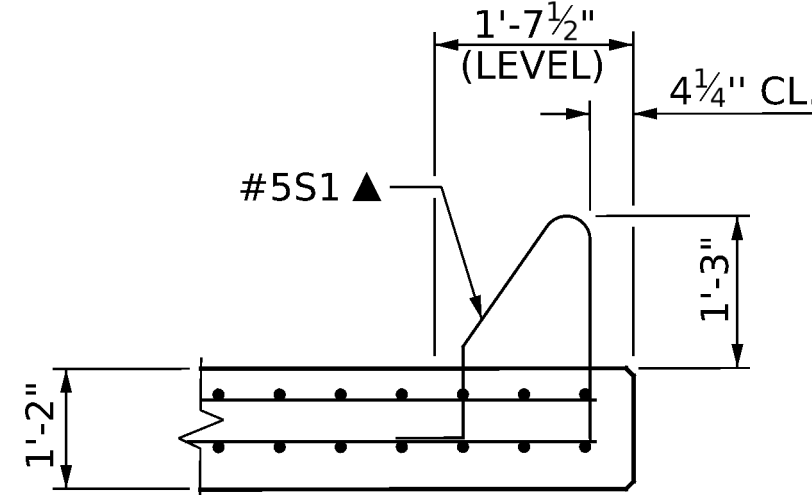
▲ SEE SHEET 3 OF 3 FOR #5S1 AND #5S4 BAR DETAILS

NOTES

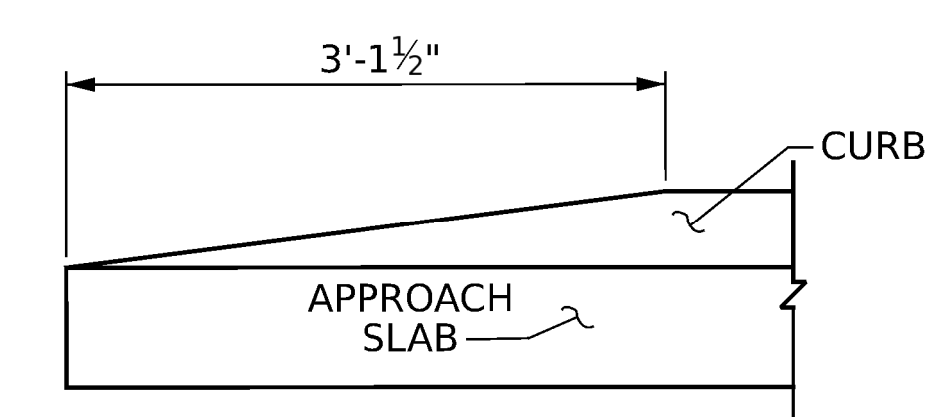
SEE SHEETS 2 OF 3 AND 3 OF 3 FOR ADDITIONAL DETAILS AND BARRIER RAIL DETAILS.



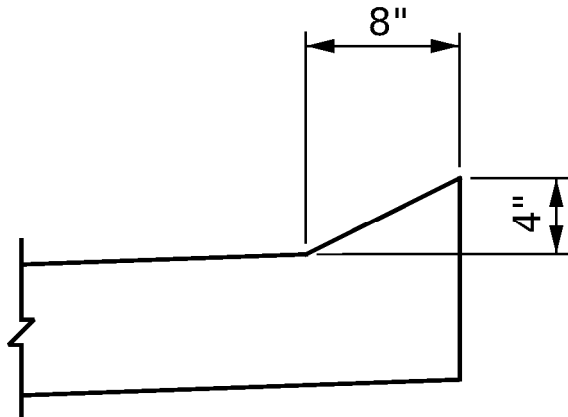
SECTION J-J



SECTION K-K



END OF CURB WITHOUT SHOULDER BERM GUTTER



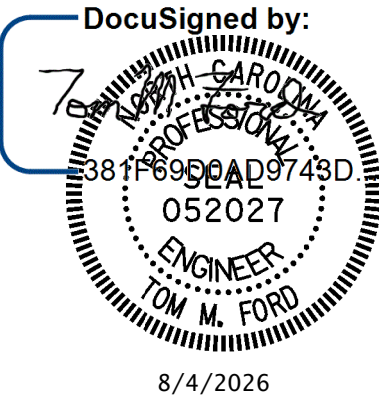
SECTION N-N

PROJECT NO. **I-2513AC**
BUNCOMBE COUNTY
STATION: **19+17.50 -Y2RPB-**

SHEET 1 OF 3

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

APPROACH SLAB



DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	
1			3		S2-41
2			4		
TOTAL SHEETS					44

STR. #2



GFT Infrastructure, Inc.
One Glenwood Avenue, Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DRAWN BY : J. HARRIS DATE : 4/2024
CHECKED BY : J. FARNHAM DATE : 6/2024
DESIGN ENGINEER OF RECORD: T. FORD DATE : 6/2024

PLAN
DIMENSIONS SHOWN ARE TYPICAL FOR BOTH APPROACH SLABS

